Foreword

Projections of Education Statistics to 2010 is the 29th report in a series begun in 1964. This report provides revisions of projections shown in *Projections of Education Statistics to 2009* and includes statistics on elementary and secondary schools and institutions of higher education at the national level. Included are projections for enrollment, graduates, classroom teachers, and expenditures to the year 2010.

In addition, this report includes projections of public elementary and secondary enrollment and high school graduates to the year 2010 at the state level. These projections were produced to provide researchers, policy analysts, and others with state-level projections developed with a consistent methodology. They are not intended to supplant detailed projections prepared in individual states.

The projections presented in this report reflect revisions influenced by the 1990 census, but exclude the net undercount of 4 to 5 million. The revised population projections developed by the Bureau of the Census also reflect the incorporation of the 1999 estimates and latest assumptions for the fertility rate, net immigration, and mortality rate.

This report contains a methodology section describing models and assumptions used to develop the national projections. The projections are based on a cohort survival model, an age-specific enrollment rate model, exponential smoothing models, and econometric models. The enrollment rate model uses population estimates and projections from the Bureau of the Census. The exponential smoothing models are based on the mathematical projection of past data patterns into the future. The econometric models use projections of exogenous variables from the company, Standard and Poor's DRI, an economic forecasting service. Therefore, assumptions regarding the population and the economy are the key factors underlying the projections of education statistics.

Most of the projections include three alternatives, based on different assumptions about growth paths. Although the first alternative set of projections (middle alternative) in each table is deemed to represent the most likely projections, the low and high alternatives provide a reasonable range of outcomes.

In the forecast summary, national and state-level highlights and key demographic and economic assumptions underlying the projections are presented in chart 1. A summary of the projections is available in a pocket-sized folder, *Pocket Projections 2010*.

Valena W. Plisko, Associate Commissioner
Early Childhood, International, and Crosscutting Studies Division
August 2000

Acknowledgments

Projections of Education Statistics to 2010 was produced by the National Center for Education Statistics in the Early Childhood, International, and Crosscutting Studies Division under the general direction of Thomas D. Snyder, Director of the Annual Reports Program. The report was prepared by Debra E. Gerald, Mathematical Statistician, and William J. Hussar, Financial Economist.

Debra E. Gerald prepared projections of the following: elementary and secondary enrollment (chapter 1); higher education enrollment (chapter 2); high school graduates (chapter 3); earned degrees conferred (chapter 4); and classroom teachers (chapter 5). In addition, she prepared the appendixes explaining the methodologies used to develop these projections and the data sources. William J. Hussar prepared the projections of expenditures of public elementary and secondary schools, including public school teacher salaries (chapter 6) and expenditures of institutions of higher education (chapter 7). In addition, he prepared the appendixes explaining the methodologies used to obtain the expenditure projections, selected portions of the data sources, and glossary.

The technical review was done by Ellen Bradburn of the National Center for Education Statistics and David Miller of the Education Statistics Services Institute (ESSI). Mary McLaughlin and Megan Warnick of ESSI assisted in the technical review of this report. The adjudication was done by Marilyn M. McMillen, Chief Statistician of the National Center for Education Statistics. Valuable assistance was also provided by the following reviewers: Arlene Dohm of the Bureau of Labor Statistics; Brenda Giles of the New Mexico Department of Education; Vance Grant of the National Library of Education, Office of Educational Research and Improvement; Patricia Maloney of the American Council on Education; Gregory Spencer of the U.S. Census Bureau; and William Fowler, Frank Morgan, John Sietsema, and Peter Stowe of the National Center for Education Statistics.

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Forecast Summary

Highlights

National

Over the projection period, growth in the school-age and traditional college-age populations is expected to cause increases in enrollments.

The 5- to 17-year old population is projected to increase from 50.9 million in 1998 to 52.0 million in 2010, an increase of 2 percent. The 18- to 24-year-old population is expected to increase from 25.6 million in 1998 to 30.3 million in 2010, an increase of 18 percent (tables B3 and B4).

Total public and private elementary and secondary enrollment is projected to increase 1 percent over the projection period.

Total public and private elementary and secondary enrollment is projected to increase from 52.5 million in 1998 to 53.5 million in 2005, an increase of 2 percent . Then total enrollment is projected to decrease by 1 percent to 53.0 million by 2010, resulting in an overall increase of 1 percent from 1998 (table 1).

Enrollment in higher education is projected to increase 20 percent over the projection period

Higher education enrollment is projected to increase from an estimated 14.6 million in 1998 to 17.5 million by the year 2010, an increase of 20 percent. A 17-percent increase is projected under the low alternative and a 24-percent increase is projected under the high alternative (table 10).

The number of high school graduates is projected to increase 14 percent over the projection period.

High school graduates from public and private high schools are projected to increase from 2.7 million in 1997-98 to 3.1 million by 2009-10, an increase of 14 percent. This significant increase reflects the projected rise in the 18-year-old population (table 33).

Over the projection period, the number of bachelor's degrees is projected to increase 13 percent.

The number of bachelor's degrees is expected to increase from 1,175,000 in 1997-98 to 1,324,000 by 2009-10, an increase of 13 percent (table 37).

The number of classroom teachers is projected to increase 4 percent over the projection period.

Under the middle alternative, the number of classroom teachers is expected to increase from 3.22 million in 1998 to 3.35 million by the year 2010, an increase of 4 percent. A 2-percent increase is projected under the low alternative and a 7-percent increase is projected under the high alternative (table 41).

Current expenditures for public elementary and secondary schools are forecast to increase 38 percent from 1997-98 to 2009-10 in constant dollars.

Under the middle alternative, a 38-percent increase in current expenditures for public elementary and secondary schools is projected for the period from 1997-98 to 2009-10. Under the low alternative, current expenditures are projected to increase by 29 percent; under the high alternative, current expenditures are projected to increase by 50 percent (table 43).

Current expenditures per pupil are forecast to increase 36 percent for the period 1997-98 to 2009-10 in constant dollars.

Under the middle alternative, current expenditures per pupil in average daily attendance are forecast to increase 36 percent in constant dollars from 1997-98 to 2009-10. Under the low alternative, current expenditures per pupil are projected to increase 26 percent and under the high alternative, current expenditures per pupil are projected to increase 47 percent (table 43).

Teacher salaries are projected to increase 7 percent in constant dollars between 1998-99 and 2009-10.

Under the middle alternative, teacher salaries are projected to increase 7 percent in constant dollars between 1998-99 and 2009-10. A 4-percent increase is projected under the low alternative and an 11-percent increase is projected under the high alternative (table 45).

Current-fund expenditures are projected to increase in constant dollars in both public and private institutions.

Total current-fund expenditures of institutions of higher education are projected to increase 50 percent in constant dollars under the middle alternative from 1995-96 to 2009-10. A 52-percent increase is projected for public institutions and a 45-percent increase is projected for private institutions (table 46).

State-Level

Public elementary and secondary school enrollment (kindergarten through grade 12) is expected to increase between 1999 and the year 2010, but these increases will vary by region.

Public elementary and secondary school enrollment will increase moderately in the West, where total enrollment is expected to rise 7 percent between 1999 and 2010. Enrollment in the South is projected to increase by 1 percent. The Northeast is expected to decrease by 4 percent, while the Midwest is projected to decrease by 3 percent (table 5).

Changes in public school enrollment are projected to range from increases of 10 percent or more in some states to decreases in other states between 1999 and 2010.

Nationally, public school enrollment is projected to increase 0.5 percent between 1999 and 2010. The largest increases are expected in Alaska (12 percent), Arizona (12 percent), Hawaii (12 percent), Idaho (16 percent), Nevada (15 percent), and New Mexico (14 percent) (table 5).

Growth in the number of graduates from public high schools will vary by region.

The number of public high school graduates is projected to increase 12 percent between 1998-99 and 2009-10. Across regions, the West is expected to rise by 20 percent. The Northeast is projected to grow by 11 percent. The South and Midwest are expected to increase by 13 percent and 4 percent, respectively, over the projection period (table 35).

Increases in the number of public high school graduates are projected for most states.

Between 1998-99 and 2009-10, sizable increases are expected in Arizona (48 percent), Florida (28 percent), Nevada (79 percent), and North Carolina (31 percent) (table 35).

Chart 1.—Summary of forecast assumptions to 2010

Variables	Middle alternative	Low alternative	High alternative
Demographic Assumptions			
Population	Projections are consistent with the Census Bureau middle series estimates, which assume a fertility rate of 2.12 births per woman by the year 2010, a yearly net migration ranging from 960,000 to 720,000 per year, and a further reduction in the mortality rate.	Same as middle alternative	Same as middle alternative
18- to 24-year-old population	Average annual growth rate of 1.4%	Same as middle alternative	Same as middle alternative
25- to 29-year-old population	Average annual growth rate of 0.5%	Same as middle alternative	Same as middle alternative
30- to 34-year-old population	Average annual decline of 0.5%	Same as middle alternative	Same as middle alternative
35- to 44-year-old population	Average annual decline of 1.0%	Same as middle alternative	Same as middle alternative
Public elementary enrollment	Average annual decline of 0.1%	Same as middle alternative	Same as middle alternative
Public secondary enrollment	Average annual growth rate of 0.5%	Same as middle alternative	Same as middle alternative
Undergraduate enrollment	Average annual growth rate of 1.6%	Average annual growth rate of 1.4%	Average annual growth rate of 1.9%
Graduate enrollment	Average annual growth rate of 1.0%	Average annual growth rate of 0.8%	Average annual growth rate of 1.4%
First-professional enrollment	Average annual growth rate of 0.8%	Average annual growth rate of 0.7%	Average annual growth rate of 1.2%
Full-time-equivalent enrollment	Average annual growth rate of 1.6%	Average annual growth rate of 1.4%	Average annual growth rate of 1.9%
Economic Assumptions			
Disposable income per capita in constant dollars	Annual percent changes range between 1.8% and 2.7% with an annual compound growth rate of 2.3%.	Annual percent changes range between 0.5% and 2.4% with an annual compound growth rate of 1.4%.	Annual percent changes range between 2.6% and 3.9% with an annual compound growth rate of 3.3%.
Education revenue receipts from state sources per capita in constant dollars	Annual percent changes range between -0.5% and 2.6% with an annual compound growth rate of 0.6%.	Annual percent changes range between -1.7% and 2.5% with an annual compound growth rate of 0.0%.	Annual percent changes range between 0.1% and 2.7% with an annual compound growth rate of 1.2%.
Inflation rate	Inflation rate ranges between 2.2% and 2.7%.	Inflation rate ranges between 1.7% and 2.7%.	Inflation rate ranges between 0.7% and 2.1%.
Personal taxes and nontax receipts to state and local governments per capita in constant dollars	Annual percent changes range between 0.1% and 3.3% with an annual compound growth rate of 2.6%.	Annual percent changes range between -2.0% and 2.8% with an annual compound growth rate of 1.4%.	Annual percent changes range between 0.8% and 4.4% with an annual compound growth rate of 4.1%.
Sum of personal taxes and nontax receipts and indirect business taxes and tax accruals (excluding property taxes) to state and local Governments per capita in constant dollars	Annual percent changes range between 1.4% and 3.1% with an annual compound growth rate of 2.3%.	Annual percent changes range between -0.7% and 2.0% with an annual compound growth rate of 1.1%.	Annual percent changes range between 2.6% and 4.7% with an annual compound growth rate of 3.6%.
Unemployment Rate (Men)			
Age 18 to 19	Remains between 12.9% and 16.0%	Remains between 13.0% and 20.0%	Remains between 12.4% and 15.3%
Age 20 to 24	Remains between 7.2% and 9.0%	Remains between 7.2% and 12.1%	Remains between 6.8% and 8.7%
Age 25 and over	Remains between 2.8% and 3.7%	Remains between 2.8% and 5.5%	Remains between 2.6% and 3.5%
Unemployment Rate (Women)			
Age 18 to 19	Remains between 11.4% and 12.5%	Remains between 11.4% and 15.1%	Remains between 11.3% and 12.4%
Age 20 to 24	Remains between 7.0% and 7.8%	Remains between 7.0% and 9.8%	Remains between 6.8% and 7.8%
Age 25 and over	Remains between 3.2% and 3.7%	Remains between 3.2% and 4.9%	Remains between 3.0% and 3.7%

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Introduction

Guide to This Edition

This edition of *Projections of Education Statistics to 2010* provides projections for key education statistics. This edition includes statistics on enrollment, graduates, classroom teachers, and expenditures in elementary and secondary schools and institutions of higher education. For the Nation, the tables, figures, and text contain data on enrollment, teachers, graduates, and expenditures for the past 14 years and projections to the year 2010. For the 50 States and the District of Columbia, the tables, figures, and text contain data on projections of public school elementary and secondary enrollment and public high school graduates to the year 2010. Similar methodologies were used to obtain a uniform set of projections for the 50 states and the District of Columbia. These projections are further adjusted to agree with the national projections of public elementary and secondary school enrollment and public high school graduates appearing in this report. These projections reflect 1999 population estimates and population projections based on the 1990 census, but exclude the 1990 net undercount of 4 to 5 million. Appendix A describes the methodology and assumptions used to develop the projections. Appendix B contains tables of supplementary data. Data sources are presented in appendix C. Appendix D is a glossary of terms.

Limitations of Projections

Projections of time series usually differ from the final reported data due to errors from many sources. This is because of the inherent nature of the statistical universe from which the basic data are obtained and the properties of projection methodologies, which depend on the validity of many assumptions. Therefore, alternative projections are shown for most statistical series to denote the uncertainty involved in making projections. These alternatives are not statistical confidence limits, but instead represent judgments made by the authors as to reasonable upper and lower bounds. The mean absolute percentage error is one way to express the forecast accuracy of past projections. This measure expresses the average value of the absolute value of errors in percentage terms. For example, the mean absolute percentage errors of public school enrollment in grades K-12 for lead times of 1, 2, 5, and 10 years were 0.4, 0.6, 1.4, and 3.1 percent, respectively. On the other hand, mean absolute percentage errors for bachelor's degrees for lead times of 1, 2, and 5 years were 2.0, 2.9, and 6.1 percent respectively.

Alternative projections are presented for higher education enrollment, classroom teachers, and expenditures of public elementary and secondary schools and institutions of higher education.

Chapter 1

Elementary and Secondary Enrollment

National

Public and private elementary and secondary enrollment is expected to reach a record 53.0 million in fall 2000. The record 2000 enrollment reflects an increase of 6.5 million, or 14 percent since fall 1990. Further small enrollment increases are expected between 2000 and 2005, followed by small enrollment declines between 2005 and 2010. The primary reason for the continuing increase over the first 5 years is the rising number of annual births between 1977 and 1990—sometimes referred to as the baby boom echo (table B1 and figure 1). After a period of stability and small declines from 1991 to 1997, the number of births has begun rising again. Reflecting this, the 3- to 5-year-old population is projected to increase only 0.5 percent by 2002 and then rise 3 percent by 2010 (table B2 and figure 2). Increases in the 5-13-year-old population from 1998 to 2002 and decreases from 2003 to 2008, followed by slight increases in 2009 and 2010 are expected to cause rises in K-8 enrollment in 2001 and decreases through 2008 and then increases to 2010. Over the next decade, elementary enrollment is projected to remain at the high levels evident in the late 1990s (figure 3). Growth in the 14- to 17-year-old population to 2007 and decline through 2010 will continue to influence growth in grades 9 through 12 enrollment through 2006. Between 2000 and 2010 enrollment in secondary schools is projected to exceed enrollment in the late 1990s.

Enrollment, by Grade Group

Enrollment in grades K-8 increased from 34.0 million in 1990 to approximately 38.1 million in 2000, an increase of 12 percent. Enrollment in grades K-8 is projected to increase slightly to 38.2 million in 2001, and then decrease slowly through 2008 to 37.3 million. Thereafter, elementary enrollment is expected to begin increasing again, rising to 37.5 million by 2010 (table 1 and figure 4).

Enrollment in grades 9-12 has risen from 12.5 million in 1990 to a projected 14.9 million in 2000, an increase of 19 percent. Thereafter, enrollment in grades 9-12 is projected to rise to 16.0 million in 2006, before decreasing slightly to 15.5 million by 2010, an increase of 4 percent from 2000. In the year 2005, enrollment in grades 9-12 is projected to reach an all-time record of 15.9 million, surpassing the previous high of 15.7 million in fall 1976.

Enrollment, by Control of School

Enrollment in public elementary and secondary schools increased from 41.2 million in 1990 to an estimated 47.0 million in 2000, an increase of 14 percent (figure 5). Enrollment in public schools is projected to rise slightly over the next 5 years, then decrease slightly over the following 5 years. In 2010, public school enrollment is projected to be 47.1 million, about the same as 2000.

Since the mid-1980s, enrollment in private elementary and secondary schools has fluctuated between 5.2 million and 5.9 million. In fall 2000, an estimated 6.0 million students will be enrolled in private elementary and secondary schools. Enrollment in private schools is projected to remain around that level between 2000 and 2010.

Public School Enrollment, by Grade

Between 2000 and 2010, public school enrollment in grades K-12 is projected to remain virtually unchanged. However, projections of public school enrollment by grade will vary over the projection period (table 3 and figure 6). Enrollment in grade 1 is projected to increase through 2002, increase slightly through 2005, decrease in 2006, and then increase through 2010. Enrollment in grade 4 is expected to decrease through 2005 and then increase through 2010. Enrollment in grade 8 is projected to increase to 2003 and then decrease to 2010. Enrollment in grade 12 is expected to increase through 2007 and then decrease to 2010.

Methodology

Enrollment rates for the school-age populations are nearly 100 percent for elementary grades and junior-high grades and close to 90 percent for high school grades. Thus, the historical and projected patterns of decline and growth in enrollment in grades K-8 and grades 9-12 are strongly correlated with changes in the sizes of the 5- to 13-year-old population and the 14- to 17-year-old population. Projections of enrollments in public elementary and secondary schools are based on projected grade progression rates. The grade progression rates for grades 2 through 10 are all close to 100 percent. Rates for grade 6 to grade 7 and grade 8 to grade 9 are significantly over 100 percent. Traditionally, these are the grades in which large numbers of private elementary students transfer to public secondary schools. The progression rates for grades 10 to 11 and 11 to 12 are about 90 percent. The grade progression rates are assumed to be constant over the projection period.

Projections of private school enrollment were derived using public school enrollment data. From 1970 to 1998, the ratio of private school enrollment to public school enrollment was calculated for grades K-8 and grades 9-12. These ratios were projected using single exponential smoothing, yielding a constant value over the projection period. This constant was applied to projections of public school enrollment for grades K-8 and 9-12 to yield projections of private school enrollment. By organizational level, it was assumed that enrollment for grades K-8 was equal to elementary enrollment and enrollment for grades 9-12 was equal to secondary enrollment.

This method assumes that the future pattern in the trend of private school enrollment will be the same as that in public school enrollment. A number of factors could alter the assumption of a constant ratio over the projection period; however, the historical relationships between public and private school enrollment have been stable. For more information, see appendix A, section A.1.

Projections of public elementary and secondary enrollment that have been produced over the last 17 years are more accurate than projections of public high school graduates and public classroom teachers that NCES has published over the same time period. For more information, see appendix A1, page 115.

State

Public elementary and secondary school enrollment is projected to rise between 1999 and the year 2010, but growth will vary widely across the nation (table 4 and figure 7). Enrollment will increase in the Western and Southern regions, where public school enrollment is expected to rise 7 percent and 1 percent, respectively. A decrease of 4 percent is projected for the Northeastern region, while a decrease of 3 percent is expected in the Midwestern region (table 5 and figure 8).

Public School Enrollment

Over the projection period, public school enrollment is expected to vary across states. All of the states in the Northeast will have enrollment decreases. Decreases will occur in Connecticut (6 percent), Maine (7 percent), Massachusetts (4 percent), New Hampshire (0.9 percent), New Jersey (1 percent), New York (5 percent), Pennsylvania (5 percent), Rhode Island (6 percent), and Vermont (5 percent).

In the Midwest, public school enrollment will increase or show no change in two of the states between 1999 and 2010, while 10 states will have declines. No growth is expected in Illinois and an enrollment increase is projected for Indiana (0.3 percent). Decreases are projected for Iowa (5 percent), Kansas (0.5 percent), Michigan (6 percent), Minnesota (4 percent), Missouri (1 percent), Nebraska (0.9 percent), North Dakota (7 percent), Ohio (6 percent), South Dakota (4 percent), and Wisconsin (3 percent).

Public school enrollment increases are projected for seven of the 17 Southern states between 1999 and 2010. Increases are projected for Alabama (0.2 percent), Delaware (0.8 percent), Georgia (7 percent), Maryland (0.4 percent), Tennessee (3 percent), Texas (6 percent), and Virginia (2 percent). Decreases in enrollment have been projected for Arkansas (3 percent), District of Columbia (8 percent), Florida (1 percent), Kentucky (4 percent), Louisiana (6 percent), Mississippi (1 percent), North Carolina (0.6 percent), Oklahoma (6 percent), South Carolina (4 percent), and West Virginia (8 percent).

All of the 13 states in the West are expected to show increases in public school enrollment between 1999 and 2010. Increases are expected in Alaska (12 percent), Arizona (12 percent), California (5 percent), Colorado (6 percent), Hawaii (12 percent), Idaho (16 percent), Montana (3 percent), Nevada (15 percent), New Mexico (14 percent), Oregon (1 percent), Utah (8 percent), Washington (3 percent), and Wyoming (8 percent).

Public Elementary Enrollment

Between 1999 and 2010, public elementary school enrollment in kindergarten through grade 8 (K-8) is expected to decrease by 1 percent. However, increases in public school elementary enrollment are expected to occur in less than half of the states across the nation (table 6 and figure 9). These expected increases in elementary enrollment are a reflection of immigration and the relatively high level of births in the 1990s, rather than changes in the attendance rates of young children. The NCES projections do not account for enrollment increases that may be caused by changing state and local policies about the provision of prekindergarten and kindergarten programs. Expansion of these programs could lead to higher enrollments at the elementary school level.

Public school elementary enrollment is expected to show a decrease of 7 percent in the Northeast between 1999 and 2010 (table 7 and figure 10). All states are expected to show decreases. These decreases are projected for Connecticut (10 percent), Maine (4 percent), Massachusetts (8 percent), New Hampshire (2 percent), New Jersey (5 percent), New York (8 percent), Pennsylvania (7 percent), Rhode Island (8 percent), and Vermont (1 percent).

A decrease of 4 percent in public school elementary enrollment has been projected for the Midwestern region between 1999 and 2010. Nine of the twelve states in this region are projected to show decreases. These will occur in Illinois (4 percent), Indiana (2 percent), Iowa (4 percent), Michigan (7 percent), Minnesota (3 percent), Missouri (2 percent), North Dakota (1 percent), Ohio (6 percent), and Wisconsin (3 percent). Increases are expected for Kansas (0.7 percent), Nebraska (1 percent), and South Dakota (3 percent).

A decrease of 1 percent is expected for the Southern region between 1999 and 2010. Fourteen of the 16 states are projected to show decreases. Decreases are projected for Alabama (0.7 percent), Arkansas (4 percent), Delaware (2 percent), District of Columbia (5 percent), Florida (5 percent), Kentucky (5 percent), Louisiana (4 percent), Maryland (2 percent), Mississippi (2 percent), North Carolina (6 percent), Oklahoma (5 percent), South Carolina (5 percent), Virginia (0.9 percent), and West Virginia (7 percent). Increases are expected in Georgia (4 percent), Tennessee (1 percent), and Texas (5 percent).

Public school elementary enrollment in the Western states is projected to increase by 5 percent between 1999 and 2010. All of the 13 states are projected to show increases. Over the projection period, enrollment increases are projected for Alaska (12 percent), Arizona (5 percent), California (4 percent), Colorado (4 percent), Hawaii (14 percent), Idaho (19 percent), Montana (9 percent), Nevada (3 percent), New Mexico (16 percent), Oregon (2 percent), Utah (11 percent), Washington (2 percent), and Wyoming (17 percent).

Public High School Enrollment

Between 1999 and 2010, enrollment in public high schools (grades 9 through 12) is expected to increase by 5 percent (table 8 and figure 11). Over the projection period, enrollment increases are projected in all of the regions except the Midwest.

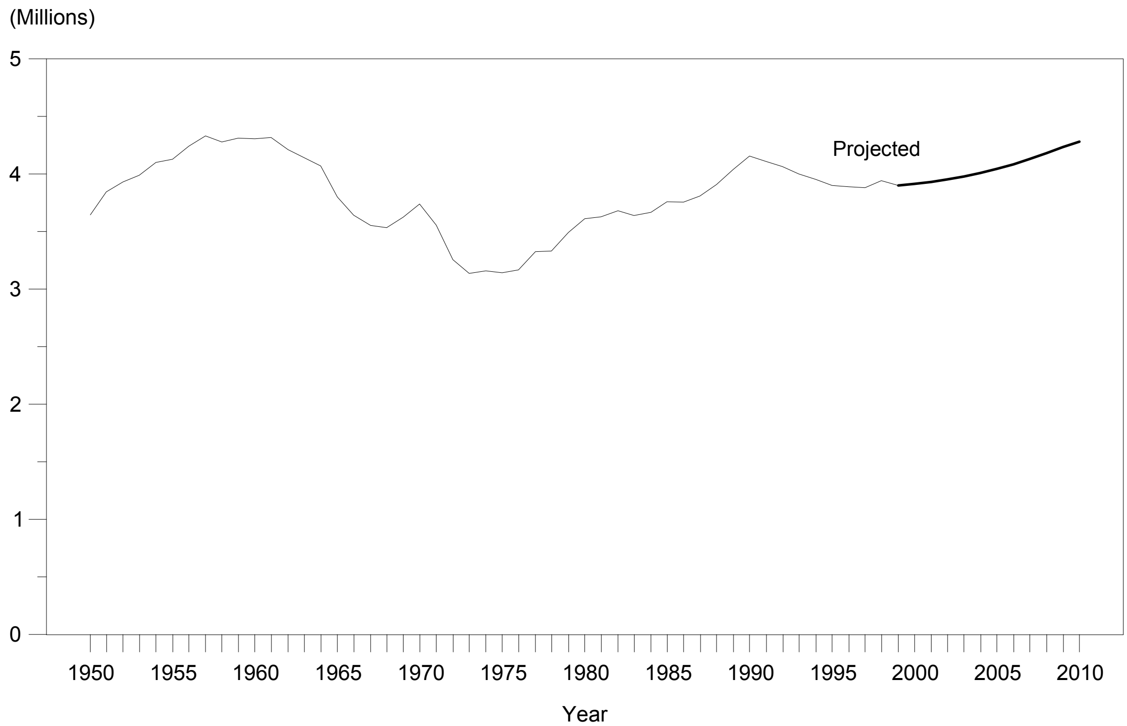
The Northeast public high school enrollment is projected to increase by 3 percent between 1999 and 2010 (table 9 and figure 12). Increases are expected in Connecticut (6 percent), Massachusetts (7 percent), New Hampshire (2 percent), New Jersey (9 percent), and New York (3 percent). Decreases are projected for Maine (14 percent), Pennsylvania (1 percent), Rhode Island (1 percent), and Vermont (12 percent).

The Midwestern region is expected to show a decrease of 0.4 percent in public high school enrollment between 1999 and 2010. Decreases are projected in Iowa (8 percent), Kansas (3 percent), Michigan (2 percent), Minnesota (4 percent), Nebraska (6 percent), North Dakota (20 percent), Ohio (4 percent), South Dakota (20 percent), and Wisconsin (4 percent). Enrollment increases are expected in Illinois (11 percent), Indiana (5 percent) and Missouri (1 percent).

Between 1999 and 2010, public high school enrollment in the South is projected to increase by 6 percent. Over the projection period, increases are expected in Alabama (3 percent), Delaware (7 percent), Florida (9 percent), Georgia (17 percent), Maryland (8 percent), Mississippi (0.7 percent), North Carolina (14 percent), Tennessee (10 percent), Texas (10 percent) and Virginia (8 percent). Decreases are expected for Arkansas (2 percent), District of Columbia (18 percent), Kentucky (3 percent), Louisiana (10 percent), Oklahoma (10 percent), South Carolina (0.5 percent), and West Virginia (10 percent).

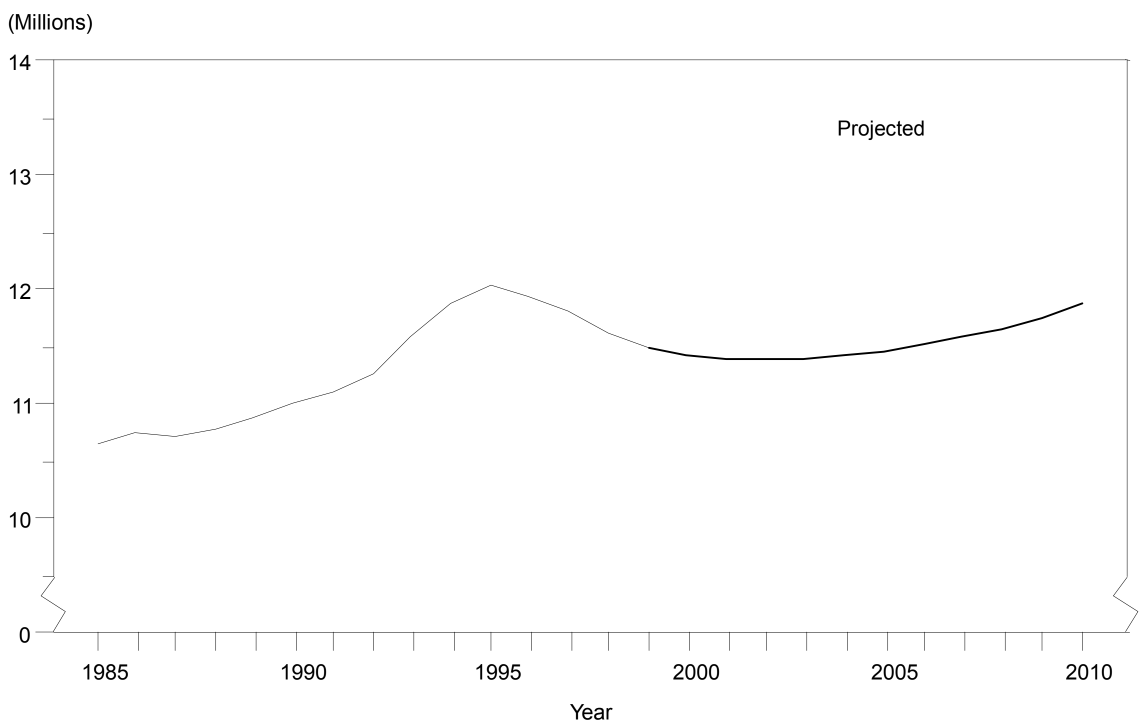
The Western region's public high school enrollment is expected to increase by 11 percent between 1999 and 2010. Between 1999 and 2010, increases have been projected for Arizona (30 percent), California (10 percent), Colorado (12 percent), and Nevada (49 percent). Other enrollment increases are expected for Alaska (10 percent), Hawaii (6 percent), Idaho (9 percent), New Mexico (10 percent), Oregon (1 percent), Utah (4 percent), and Washington (4 percent). Decreases are expected for Montana (10 percent), and Wyoming (12 percent).

Figure 1.--Annual number of births, with projections: 1950 to 2010



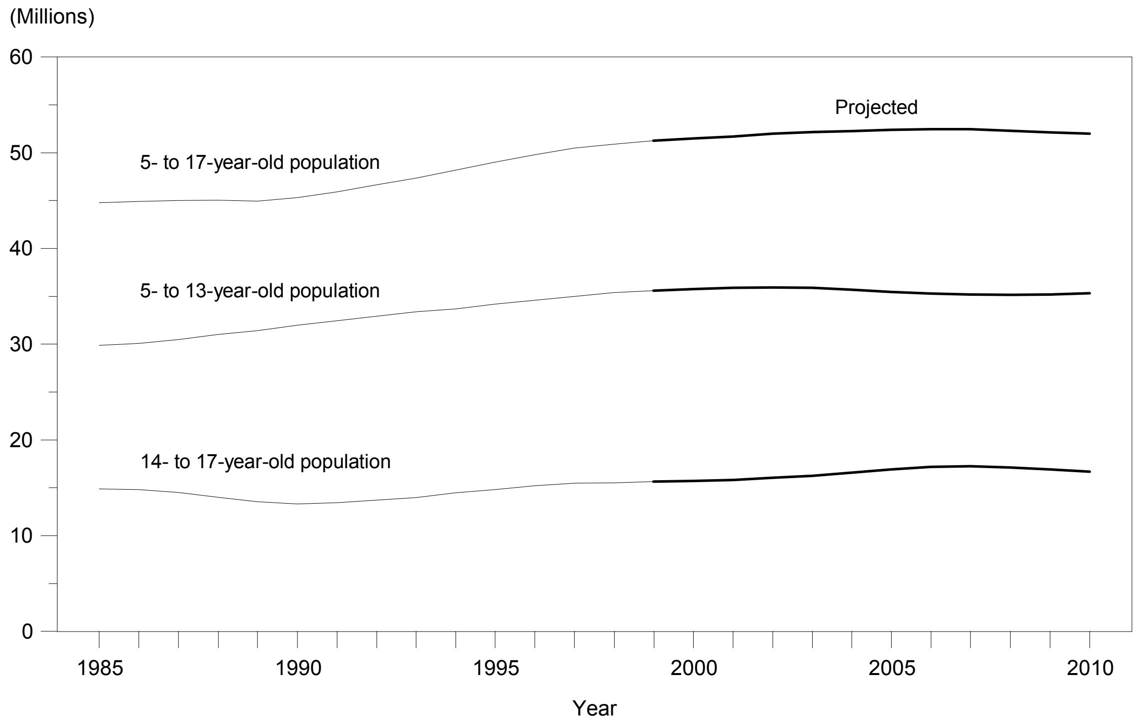
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 2.--Three- to five-year-old population, with projections: 1985 to 2010



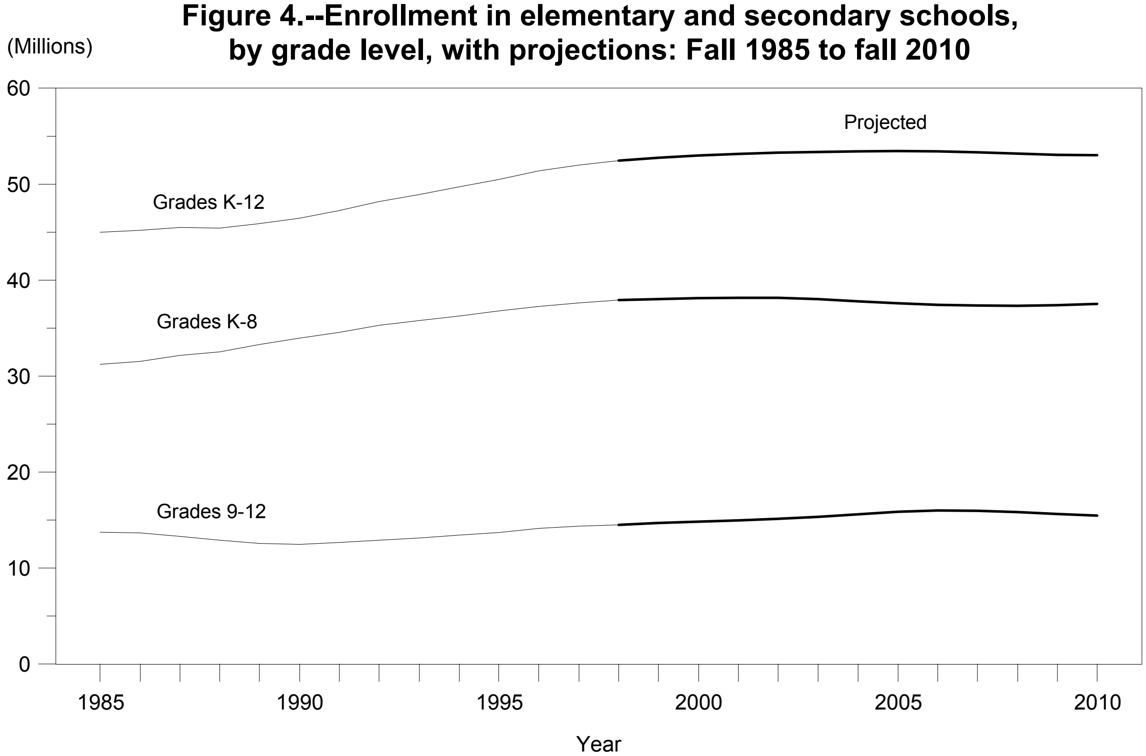
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 3.--School-age populations, with projections: 1985 to 2010



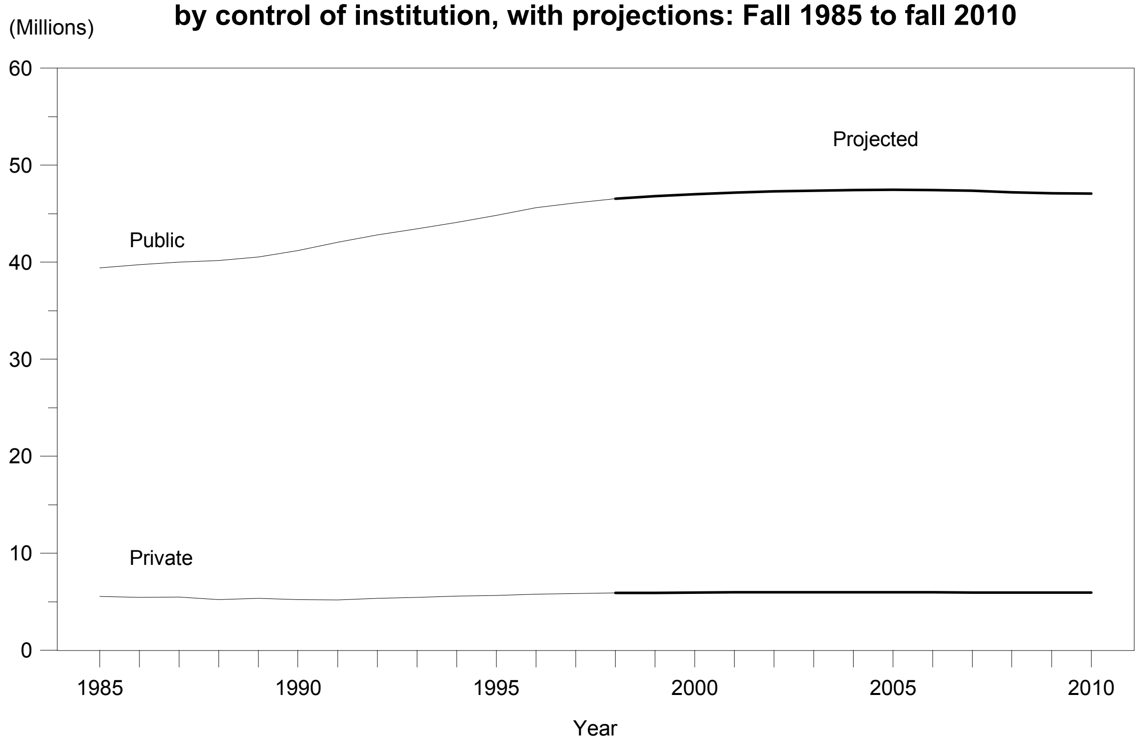
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 4.--Enrollment in elementary and secondary schools, by grade level, with projections: Fall 1985 to fall 2010



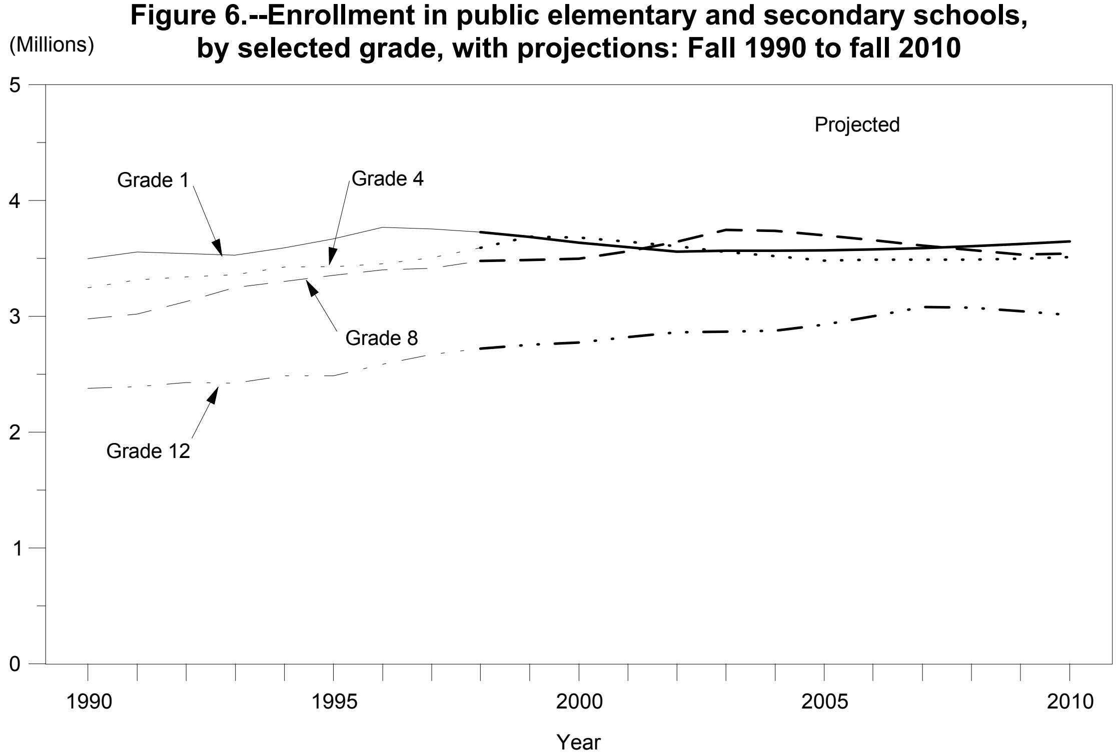
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National Elementary and Secondary Enrollment Model.

Figure 5.--Enrollment in elementary and secondary schools, by control of institution, with projections: Fall 1985 to fall 2010



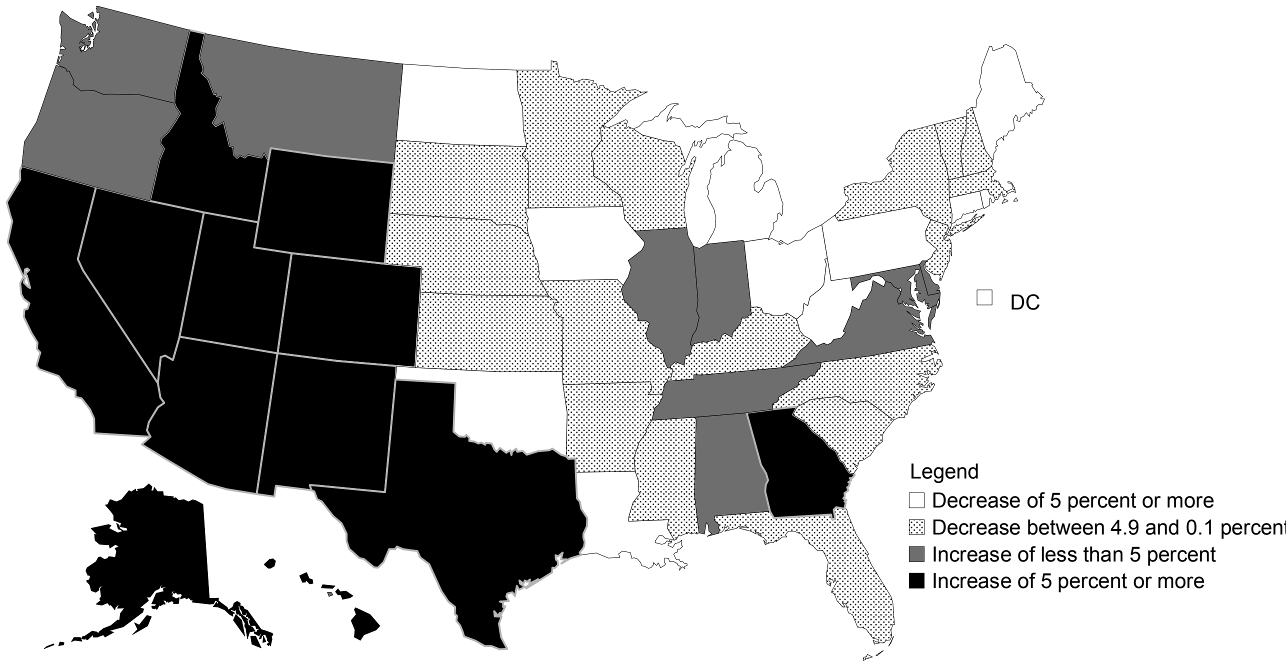
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National Elementary and Secondary Enrollment Model.

Figure 6.--Enrollment in public elementary and secondary schools, by selected grade, with projections: Fall 1990 to fall 2010



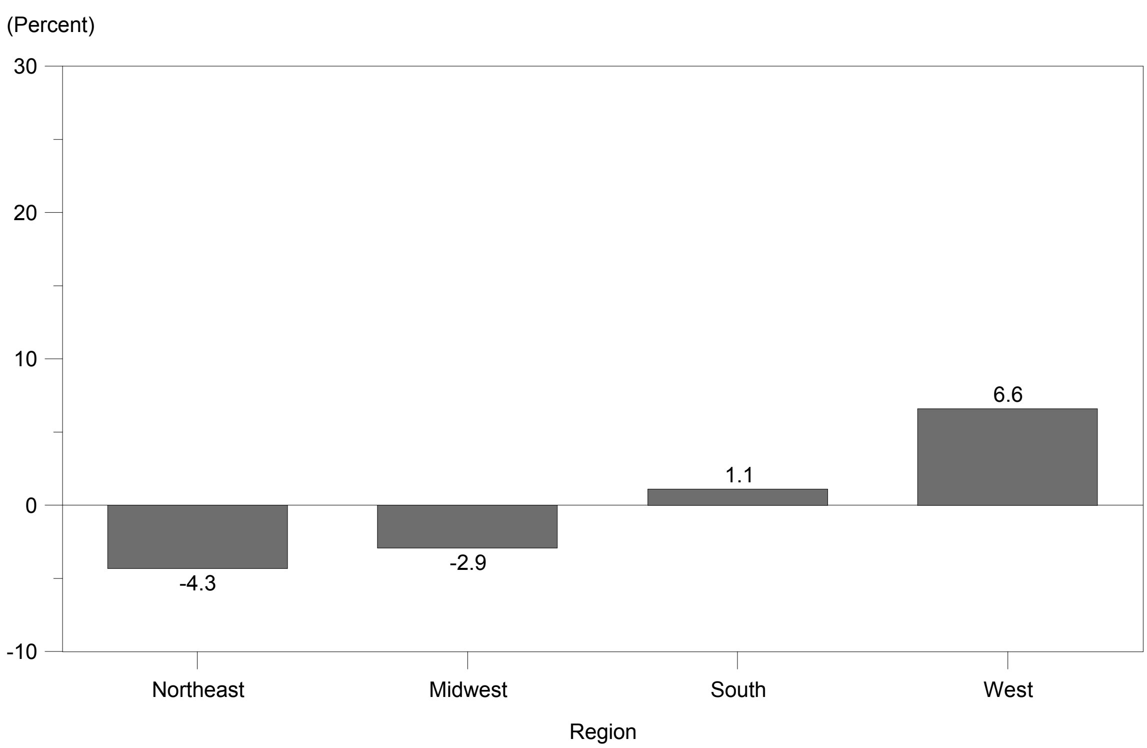
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; and Common Core of Data Surveys; and National Elementary and Secondary Enrollment Model.

Figure 7.--Percent change in grades K-12 enrollment in public schools, by state: Fall 1999 to fall 2010



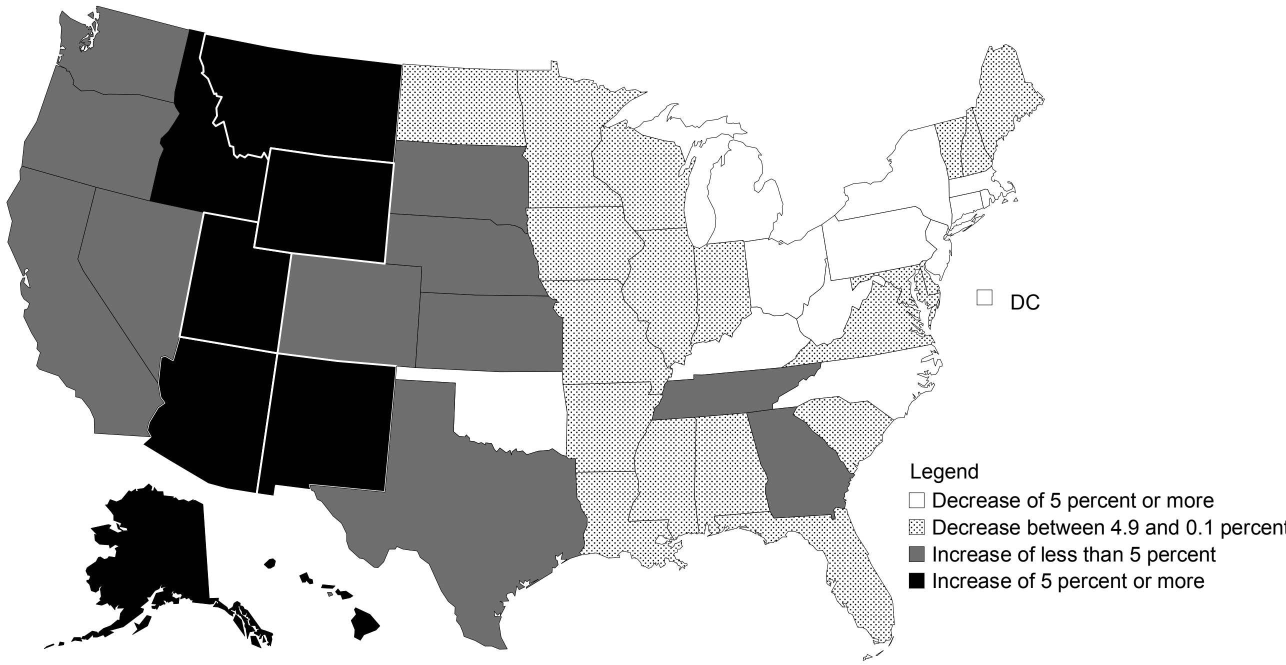
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 8.--Percent change in public K-12 enrollment, by region: Fall 1999 to fall 2010



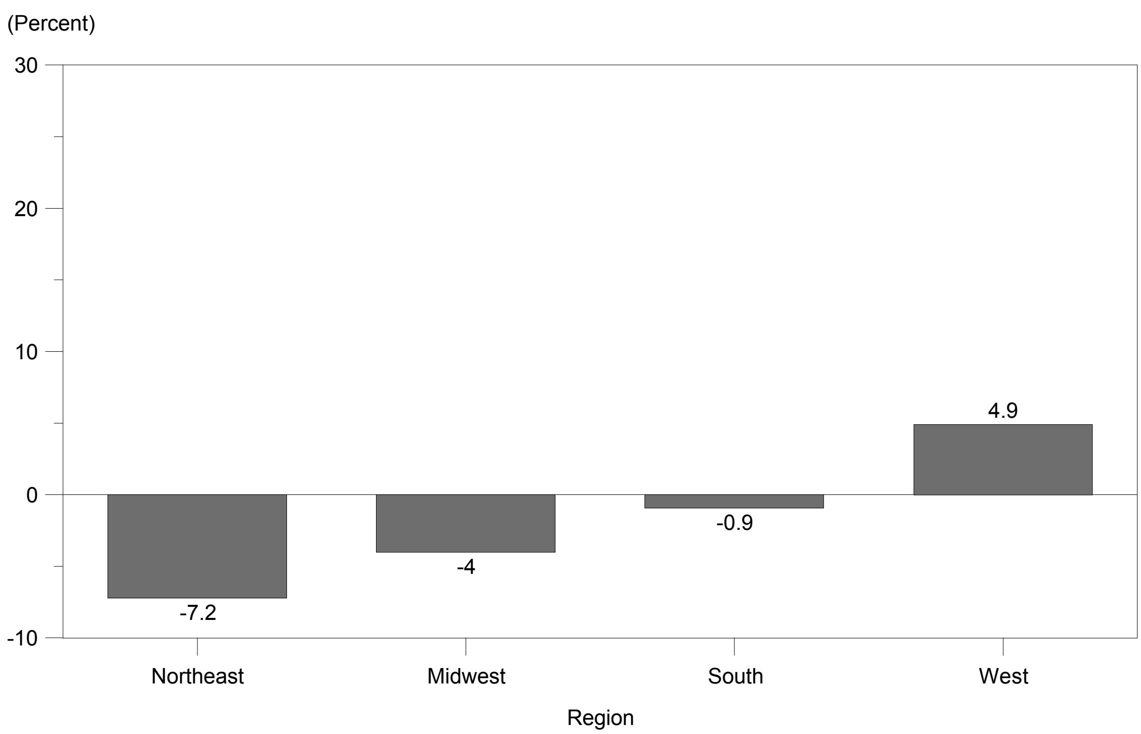
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 9.--Percent change in grades K-8 enrollment in public schools, by state: Fall 1999 to fall 2010



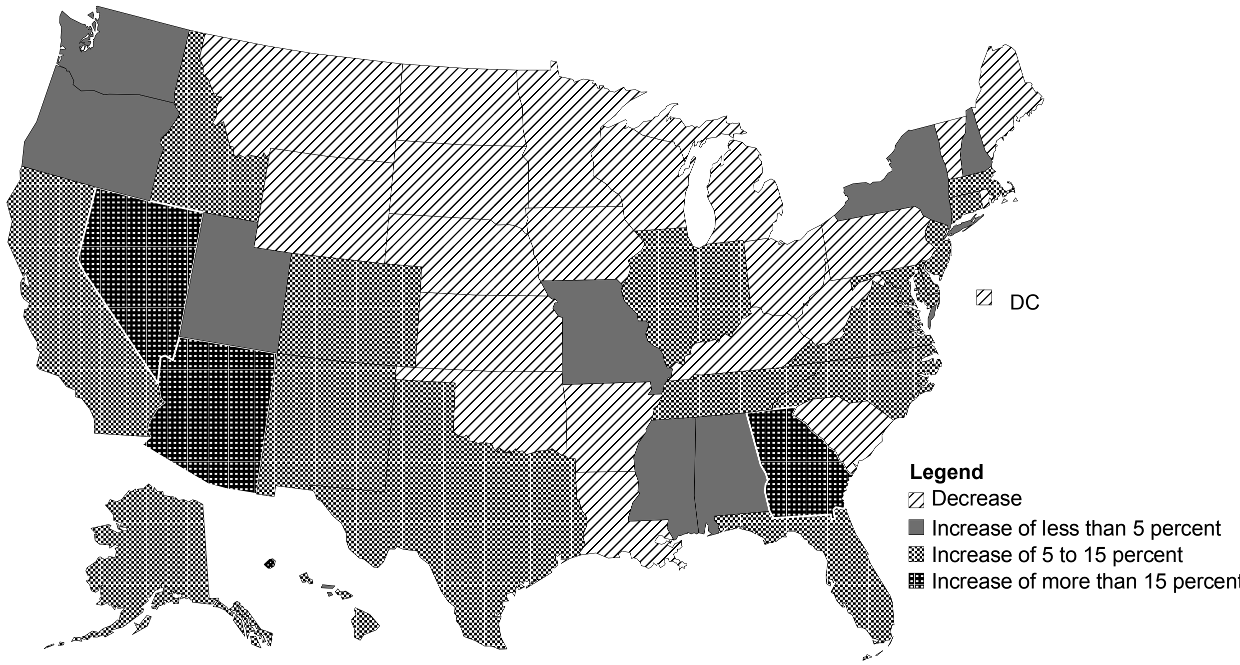
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 10.--Percent change in public K-8 enrollment, by region: Fall 1999 to fall 2010



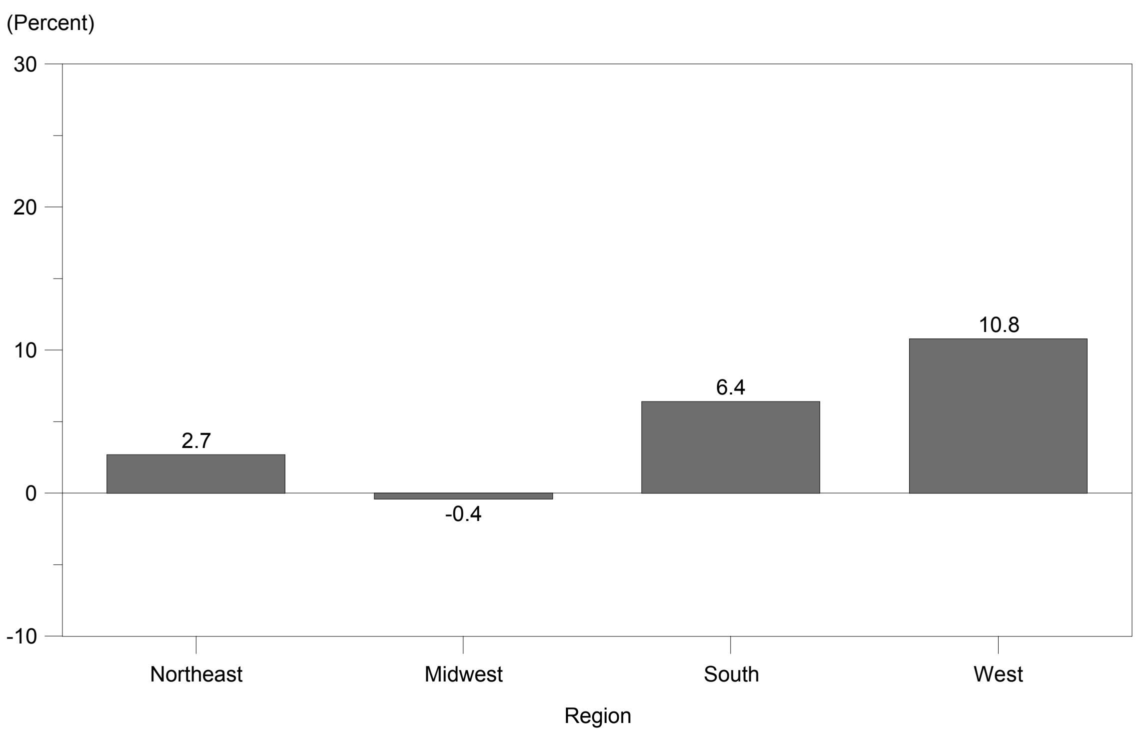
SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 11.--Percent change in grades 9-12 enrollment in public schools, by state: Fall 1999 to fall 2010



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Figure 12.--Percent change in public 9-12 enrollment, by region: Fall 1999 to fall 2010



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public Elementary and Secondary Enrollment Model.

Table 1.—Enrollment in grades K–8 and 9–12 of elementary and secondary schools, by control of institution, with projections: Fall 1985 to fall 2010

(In thousands)

Year	Total			Public			Private		
	K–12[1]	K–8[1]	9–12	K–12[1]	K–8[1]	9–12	K–12[1]	K–8[1]	9–12
1985 [2]	44,979	31,229	13,750	39,422	27,034	12,388	5,557	4,195	1,362
1986	45,205	31,536	13,669	39,753	27,420	12,333	5,452	4,116	1,336
1987 [2]	45,487	32,165	13,323	40,008	27,933	12,076	5,479	4,232	1,247
1988 [2]	45,430	32,537	12,893	40,188	28,501	11,687	5,242	4,036	1,206
1989 [3]	45,898	33,314	12,583	40,543	29,152	11,390	5,355	4,162	1,193
1990 [3]	46,449	33,973	12,475	41,217	29,878	11,338	5,232	4,095	1,137
1991 [3]	47,246	34,580	12,666	42,047	30,506	11,541	5,199	4,074	1,125
1992 [3]	48,198	35,300	12,898	42,823	31,088	11,735	5,375	4,212	1,163
1993 [3]	48,936	35,784	13,152	43,465	31,504	11,961	5,471	4,280	1,191
1994 [4]	49,707	36,258	13,449	44,111	31,898	12,213	5,596	4,360	1,236
1995 [4]	50,502	36,806	13,697	44,840	32,341	12,500	5,662	4,465	1,197
1996	51,394	37,250	14,144	45,611	32,764	12,847	5,783	4,486	1,297
1997 [4]	51,987	37,625	14,362	46,127	33,073	13,054	5,860	4,552	1,308
1998 [4]	52,459	37,941	14,518	46,535	33,344	13,191	5,924	4,597	1,327
				Projected					
1999	52,750	38,037	14,714	46,812	33,437	13,375	5,938	4,599	1,339
2000	52,989	38,132	14,857	47,026	33,521	13,505	5,963	4,611	1,352
2001	53,155	38,172	14,982	47,176	33,557	13,619	5,979	4,616	1,363
2002	53,287	38,157	15,130	47,296	33,543	13,753	5,991	4,614	1,377
2003	53,367	38,042	15,325	47,373	33,442	13,931	5,995	4,600	1,395
2004	53,429	37,809	15,620	47,436	33,237	14,199	5,993	4,572	1,422
2005	53,465	37,598	15,868	47,475	33,051	14,423	5,990	4,546	1,444
2006	53,435	37,442	15,992	47,452	32,915	14,537	5,983	4,527	1,455
2007	53,336	37,352	15,985	47,365	32,835	14,530	5,971	4,517	1,455
2008	53,174	37,340	15,834	47,218	32,825	14,393	5,956	4,515	1,441
2009	53,056	37,399	15,657	47,109	32,877	14,232	5,947	4,522	1,425
2010	53,016	37,538	15,478	47,068	32,999	14,069	5,948	4,539	1,409

[1] Includes most kindergarten and some nursery school enrollment.

[2] Private school numbers are estimated on the basis of past data.

[3] Private school numbers are from the Early Estimates survey.

[4] Private school numbers are projected.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools* ; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey* , 1995–96; *Public and Private Elementary and Secondary Education Statistics* , *Early Estimates* ; and National Elementary and Secondary Enrollment Model. (This table was prepared March 2000.)

Table 2.—Enrollment in elementary and secondary schools, by organizational level and control of institution, with projections: Fall 1985 to fall 2010

(In thousands)

Year	Total			Public			Private		
	K–12[1]	Elementary	Secondary	K–12[1]	Elementary	Secondary	K–12[1]	Elementary	Secondary
1985 [2]	44,979	28,330	16,649	39,422	24,135	15,287	5,557	4,195	1,362
1986	45,205	28,613	16,592	39,753	24,497	15,256	5,452	4,116	1,336
1987 [2]	45,487	29,447	16,040	40,008	25,215	14,793	5,479	4,232	1,247
1988 [2]	45,430	29,776	15,654	40,188	25,740	14,448	5,242	4,036	1,206
1989 [3]	45,898	30,570	15,328	40,543	26,408	14,135	5,355	4,162	1,193
1990 [3]	46,449	31,145	15,304	41,217	27,050	14,167	5,232	4,095	1,137
1991 [3]	47,246	31,669	15,577	42,047	27,595	14,452	5,199	4,074	1,125
1992 [3]	48,198	32,317	15,881	42,823	28,105	14,718	5,375	4,212	1,163
1993 [3]	48,936	32,806	16,130	43,465	28,526	14,939	5,471	4,280	1,191
1994 [4]	49,707	33,310	16,397	44,111	28,950	15,161	5,596	4,360	1,236
1995 [4]	50,502	33,894	16,608	44,840	29,429	15,411	5,662	4,465	1,197
1996	51,394	34,421	16,973	45,611	29,935	15,676	5,783	4,486	1,297
1997 [4]	51,987	34,826	17,161	46,127	30,274	15,853	5,860	4,552	1,308
1998 [4]	52,459	35,139	17,320	46,535	30,542	15,993	5,924	4,597	1,327
				Projected					
1999	52,750	35,142	17,608	46,812	30,543	16,269	5,938	4,599	1,339
2000	52,989	35,207	17,782	47,026	30,596	16,430	5,963	4,611	1,352
2001	53,155	35,185	17,969	47,176	30,570	16,606	5,979	4,616	1,363
2002	53,287	35,094	18,194	47,296	30,480	16,817	5,991	4,614	1,377
2003	53,367	34,940	18,427	47,373	30,341	17,032	5,995	4,600	1,395
2004	53,429	34,727	18,703	47,436	30,155	17,281	5,993	4,572	1,422
2005	53,465	34,548	18,918	47,475	30,001	17,474	5,990	4,546	1,444
2006	53,435	34,429	19,006	47,452	29,902	17,550	5,983	4,527	1,455
2007	53,336	34,374	18,962	47,365	29,858	17,507	5,971	4,517	1,455
2008	53,174	34,394	18,780	47,218	29,879	17,339	5,956	4,515	1,441
2009	53,056	34,466	18,590	47,109	29,944	17,165	5,947	4,522	1,425
2010	53,016	34,601	18,414	47,068	30,062	17,005	5,948	4,539	1,409

[1] Includes most kindergarten and some nursery school enrollment.

[2] Private school numbers are estimated on the basis of past data.

[3] Private school numbers are from the Early Estimates survey.

[4] Private school numbers are projected.

NOTE: Some data have been revised from previously published figures. For private schools, it was assumed that numbers for elementary are the same as those in table 1 for grades K–8, and numbers for secondary are the same as those in table 1 for grades 9–12. Designation of grades as elementary or secondary varies from school to school. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey*, 1995–96; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National Elementary and Secondary Enrollment Model. (This table was prepared March 2000.)

Table 3.—Enrollment in public elementary and secondary schools, by grade, with projections: Fall 1990 to fall 2010

(In thousands)

Year	Total	Kinder-garten[1]	Grade 1	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10	Grade 11	Grade 12	Elementary Unclassified	Secondary Unclassified
1990	41,217	3,610	3,499	3,327	3,297	3,248	3,197	3,110	3,067	2,979	3,169	2,896	2,612	2,381	543	282
1991	42,047	3,686	3,556	3,360	3,334	3,315	3,268	3,239	3,181	3,020	3,313	2,915	2,645	2,392	545	275
1992	42,823	3,817	3,542	3,431	3,361	3,342	3,325	3,303	3,299	3,129	3,352	3,027	2,656	2,431	539	269
1993	43,465	3,922	3,529	3,429	3,437	3,361	3,350	3,356	3,355	3,249	3,487	3,050	2,751	2,424	515	248
1994	44,111	4,047	3,593	3,440	3,439	3,426	3,372	3,381	3,404	3,302	3,604	3,131	2,748	2,488	494	242
1995	44,840	4,173	3,671	3,507	3,445	3,431	3,438	3,395	3,422	3,356	3,704	3,237	2,826	2,487	502	245
1996	45,611	4,203	3,770	3,600	3,524	3,454	3,453	3,494	3,464	3,403	3,801	3,323	2,930	2,586	401	206
1997	46,127	4,199	3,755	3,689	3,597	3,507	3,458	3,492	3,520	3,415	3,819	3,376	2,972	2,673	442	214
1998	46,535	4,171	3,727	3,682	3,696	3,592	3,520	3,497	3,530	3,480	3,856	3,382	3,018	2,724	450	211
									Projected							
1999	46,812	4,071	3,686	3,645	3,687	3,690	3,604	3,560	3,540	3,487	3,915	3,439	3,037	2,757	466	227
2000	47,026	4,028	3,638	3,605	3,651	3,682	3,703	3,646	3,604	3,497	3,923	3,492	3,089	2,774	468	228
2001	47,176	3,983	3,599	3,557	3,611	3,645	3,694	3,745	3,691	3,561	3,934	3,499	3,135	2,821	469	230
2002	47,296	3,993	3,560	3,520	3,563	3,605	3,658	3,737	3,792	3,646	4,006	3,509	3,142	2,864	470	233
2003	47,373	3,993	3,569	3,482	3,526	3,558	3,617	3,700	3,783	3,746	4,102	3,573	3,151	2,870	469	236
2004	47,436	3,994	3,568	3,490	3,487	3,520	3,570	3,659	3,745	3,738	4,214	3,658	3,208	2,878	467	240
2005	47,475	4,004	3,569	3,489	3,495	3,482	3,532	3,611	3,704	3,701	4,204	3,758	3,285	2,930	464	245
2006	47,452	4,019	3,578	3,491	3,494	3,490	3,494	3,573	3,655	3,660	4,163	3,750	3,375	3,000	461	249
2007	47,365	4,037	3,590	3,499	3,496	3,489	3,502	3,534	3,617	3,612	4,117	3,713	3,367	3,083	460	250
2008	47,218	4,059	3,606	3,511	3,505	3,491	3,501	3,542	3,577	3,574	4,063	3,672	3,334	3,076	460	249
2009	47,109	4,085	3,626	3,526	3,516	3,499	3,503	3,541	3,586	3,535	4,020	3,624	3,297	3,045	460	246
2010	47,068	4,117	3,649	3,546	3,532	3,511	3,511	3,543	3,585	3,543	3,976	3,585	3,254	3,012	462	243

[1] Includes most kindergarten and some nursery school enrollment.

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; and National Elementary and Secondary Enrollment Model. (This table was prepared March 2000.)

Table 4.—Enrollment in grades K–12 in public elementary and secondary schools, by region and state, with projections: Fall 1992 to fall 2010

(In thousands)

Region and state	Actual							Projected		
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
United States	42,823	43,465	44,111	44,840	45,611	46,127	46,535	46,812	47,026	47,176
Northeast	7,526	7,654	7,760	7,894	8,006	8,085	8,145	8,165	8,190	8,206
Connecticut	488	496	507	518	527	535	545	554	554	557
Maine	216	217	213	214	214	213	211	207	205	204
Massachusetts	860	878	894	915	934	949	962	972	976	982
New Hampshire	181	185	189	194	198	202	205	206	206	207
New Jersey	1,131	1,151	1,174	1,197	1,228	1,250	1,269	1,272	1,279	1,285
New York	2,690	2,734	2,766	2,813	2,843	2,862	2,877	2,877	2,895	2,899
Pennsylvania	1,718	1,744	1,765	1,788	1,804	1,815	1,816	1,817	1,816	1,814
Rhode Island	144	146	147	150	151	153	155	155	154	154
Vermont	99	103	105	106	106	106	105	104	104	103
Midwest	10,198	10,289	10,386	10,512	10,638	10,704	10,718	10,730	10,715	10,711
Illinois	1,874	1,893	1,916	1,944	1,973	1,998	2,012	2,050	2,066	2,080
Indiana	961	966	969	977	983	987	988	994	996	999
Iowa	495	499	500	502	503	501	498	498	493	490
Kansas	452	458	461	463	466	469	472	470	470	468
Michigan	1,604	1,599	1,615	1,641	1,686	1,703	1,720	1,705	1,694	1,692
Minnesota	794	810	822	835	847	854	855	855	852	850
Missouri	859	866	879	890	901	911	912	914	916	916
Nebraska	282	285	287	290	292	293	291	289	288	287
North Dakota	119	119	119	119	120	119	115	112	110	109
Ohio	1,795	1,807	1,814	1,836	1,845	1,847	1,843	1,834	1,825	1,818
South Dakota	135	143	143	145	143	142	132	130	128	126
Wisconsin	829	844	861	870	879	882	880	878	877	875
South	15,357	15,591	15,851	16,118	16,373	16,563	16,713	16,836	16,940	16,992
Alabama	732	734	737	746	748	749	748	745	750	750
Arkansas	441	444	448	453	457	456	452	453	452	450
Delaware	104	106	107	108	111	112	113	114	115	116
District of Columbia	81	81	80	80	79	77	72	69	68	67
Florida	1,981	2,041	2,111	2,176	2,242	2,294	2,338	2,371	2,392	2,404
Georgia	1,207	1,235	1,271	1,311	1,347	1,376	1,401	1,418	1,440	1,455
Kentucky	655	655	658	660	656	669	656	656	654	651
Louisiana	798	801	798	797	793	777	769	763	759	751
Maryland	752	773	791	806	819	831	842	854	861	866
Mississippi	507	506	506	506	504	505	502	501	503	502
North Carolina	1,114	1,133	1,157	1,183	1,210	1,236	1,255	1,283	1,295	1,306
Oklahoma	597	604	610	616	621	624	628	620	612	606
South Carolina	640	644	649	646	653	659	665	661	662	663
Tennessee	855	867	881	894	905	893	905	912	921	926
Texas	3,542	3,608	3,677	3,748	3,829	3,892	3,945	3,992	4,024	4,042
Virginia	1,032	1,045	1,061	1,080	1,096	1,111	1,124	1,131	1,143	1,149
West Virginia	318	314	311	307	304	301	298	294	289	287
West	9,742	9,931	10,114	10,316	10,594	10,775	10,959	11,081	11,181	11,267
Alaska	122	126	127	128	130	132	135	137	139	140
Arizona	673	709	737	744	799	814	848	875	893	909
California	5,255	5,327	5,407	5,536	5,686	5,804	5,926	5,980	6,027	6,072
Colorado	613	625	641	656	673	687	699	709	716	722
Hawaii	177	180	184	187	188	190	188	188	191	192
Idaho	232	237	240	243	245	244	245	245	249	250
Montana	160	163	164	166	165	162	160	158	158	157
Nevada	223	236	251	265	282	297	311	327	336	346
New Mexico	316	322	327	330	333	332	329	333	339	342
Oregon	510	517	522	528	538	541	543	547	547	547
Utah	464	471	475	477	482	483	481	482	483	483
Washington	896	916	938	957	975	991	998	1,007	1,010	1,014
Wyoming	100	101	100	100	99	97	95	94	93	93

Table 4.—Enrollment in grades K–12 in public elementary and secondary schools, by region and state, with projections: Fall 1992 to fall 2010—Continued

(In thousands)

Region and state	Projected								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	47,296	47,373	47,436	47,475	47,452	47,365	47,218	47,109	47,068
Northeast	8,211	8,199	8,175	8,135	8,077	8,008	7,928	7,863	7,813
Connecticut	557	556	554	550	545	539	532	527	522
Maine	202	200	198	196	195	193	192	192	192
Massachusetts	985	985	983	979	972	963	952	942	935
New Hampshire	208	208	208	207	207	206	205	204	204
New Jersey	1,291	1,294	1,295	1,292	1,287	1,279	1,269	1,261	1,255
New York	2,897	2,892	2,884	2,869	2,847	2,819	2,788	2,763	2,742
Pennsylvania	1,814	1,808	1,799	1,789	1,775	1,760	1,743	1,728	1,718
Rhode Island	154	154	153	152	151	149	148	146	145
Vermont	102	102	101	101	100	99	99	99	99
Midwest	10,699	10,674	10,652	10,635	10,606	10,563	10,501	10,450	10,416
Illinois	2,088	2,093	2,097	2,101	2,099	2,092	2,076	2,063	2,050
Indiana	1,002	1,006	1,010	1,013	1,012	1,010	1,006	1,001	998
Iowa	487	484	482	481	480	478	475	473	471
Kansas	467	465	465	464	465	465	465	466	467
Michigan	1,689	1,682	1,676	1,668	1,658	1,645	1,628	1,613	1,604
Minnesota	846	842	838	835	832	829	826	824	824
Missouri	917	916	915	915	915	913	910	906	903
Nebraska	286	285	284	285	285	285	285	286	287
North Dakota	107	106	105	104	104	103	103	104	104
Ohio	1,813	1,805	1,796	1,787	1,777	1,765	1,752	1,740	1,731
South Dakota	125	123	122	122	122	122	123	124	125
Wisconsin	872	868	864	860	858	855	853	851	851
South	17,039	17,078	17,111	17,132	17,137	17,116	17,081	17,045	17,023
Alabama	751	752	754	754	754	753	751	749	746
Arkansas	449	448	448	448	446	444	442	439	438
Delaware	116	116	116	117	116	116	116	115	115
District of Columbia	66	65	64	63	63	62	62	63	63
Florida	2,408	2,410	2,410	2,407	2,399	2,387	2,371	2,358	2,348
Georgia	1,469	1,483	1,495	1,504	1,511	1,514	1,515	1,516	1,518
Kentucky	649	647	645	644	642	639	637	632	627
Louisiana	745	739	734	730	728	725	724	722	722
Maryland	870	872	874	873	871	867	862	859	857
Mississippi	502	503	503	504	503	502	500	498	495
North Carolina	1,315	1,321	1,325	1,324	1,320	1,311	1,299	1,287	1,275
Oklahoma	601	596	592	589	587	584	582	580	579
South Carolina	662	661	657	656	652	647	645	641	638
Tennessee	933	938	942	946	947	947	945	942	942
Texas	4,066	4,087	4,110	4,134	4,158	4,182	4,201	4,222	4,243
Virginia	1,154	1,157	1,159	1,160	1,161	1,159	1,154	1,151	1,148
West Virginia	285	283	281	280	278	276	274	272	269
West	11,347	11,422	11,498	11,573	11,631	11,679	11,708	11,750	11,817
Alaska	142	143	144	145	146	148	149	151	153
Arizona	924	937	949	960	968	975	977	978	978
California	6,113	6,146	6,181	6,211	6,230	6,245	6,249	6,267	6,305
Colorado	727	732	736	741	745	748	750	751	753
Hawaii	194	195	197	199	201	203	205	207	210
Idaho	253	256	260	264	268	272	276	280	284
Montana	156	156	156	156	157	158	160	161	163
Nevada	354	362	369	374	378	380	380	379	376
New Mexico	345	349	353	357	361	365	370	375	380
Oregon	548	548	549	550	551	552	552	553	555
Utah	485	489	493	498	503	508	513	518	523
Washington	1,015	1,018	1,020	1,023	1,027	1,029	1,029	1,031	1,035
Wyoming	92	92	92	93	94	95	97	98	101

NOTE: Some data have been revised from previously published figures. Includes most kindergarten and some nursery school enrollment. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared June 2000.)

Table 5.—Percent change in grades K–12 enrollment in public schools, by region and state, with projections: Fall 1992 to fall 2010

Region and state	Actual	Projected		
	1992 to 1999	1999 to 2004	2004 to 2010	1999 to 2010
United States	9.3	1.3	-0.8	0.5
Northeast	8.5	0.1	-4.4	-4.3
Connecticut	13.4	-0.1	-5.6	-5.7
Maine	-4.2	-4.6	-2.9	-7.4
Massachusetts	13.1	1.1	-4.9	-3.9
New Hampshire	13.7	0.9	-1.8	-0.9
New Jersey	12.5	1.8	-3.1	-1.4
New York	7.0	0.3	-4.9	-4.7
Pennsylvania	5.8	-1.0	-4.5	-5.4
Rhode Island	8.0	-1.5	-5.0	-6.4
Vermont	5.4	-2.7	-2.0	-4.7
Midwest	5.2	-0.7	-2.2	-2.9
Illinois	9.4	2.3	-2.2	0.0
Indiana	3.5	1.5	-1.2	0.3
Iowa	0.6	-3.2	-2.2	-5.4
Kansas	4.1	-1.1	0.6	-0.5
Michigan	6.3	-1.7	-4.3	-5.9
Minnesota	7.8	-2.1	-1.6	-3.6
Missouri	6.4	0.1	-1.3	-1.2
Nebraska	2.4	-1.6	0.8	-0.9
North Dakota	-5.4	-6.9	-0.3	-7.2
Ohio	2.2	-2.1	-3.6	-5.6
South Dakota	-3.5	-5.9	1.9	-4.1
Wisconsin	5.8	-1.6	-1.5	-3.1
South	9.6	1.6	-0.5	1.1
Alabama	1.8	1.2	-1.0	0.2
Arkansas	2.6	-1.0	-2.3	-3.3
Delaware	9.2	2.3	-1.4	0.8
District of Columbia	-15.0	-7.4	-0.6	-7.9
Florida	19.7	1.7	-2.6	-1.0
Georgia	17.4	5.5	1.5	7.0
Kentucky	0.2	-1.7	-2.8	-4.5
Louisiana	-4.3	-3.9	-1.6	-5.5
Maryland	13.5	2.4	-1.9	0.4
Mississippi	-1.1	0.4	-1.6	-1.2
North Carolina	15.2	3.2	-3.7	-0.6
Oklahoma	3.8	-4.4	-2.2	-6.5
South Carolina	3.2	-0.6	-3.0	-3.6
Tennessee	6.6	3.3	-0.1	3.3
Texas	12.7	3.0	3.2	6.3
Virginia	9.6	2.4	-0.9	1.5
West Virginia	-7.8	-4.2	-4.2	-8.2
West	13.7	3.8	2.8	6.6
Alaska	11.7	5.1	6.4	11.9
Arizona	29.9	8.5	3.1	11.9
California	13.8	3.4	2.0	5.4
Colorado	15.7	3.8	2.3	6.3
Hawaii	6.2	4.7	6.6	11.7
Idaho	5.7	6.3	9.3	16.2
Montana	-1.5	-1.1	4.4	3.3
Nevada	46.7	12.7	2.0	15.0
New Mexico	5.6	5.9	7.7	14.0
Oregon	7.2	0.4	1.0	1.4
Utah	4.0	2.2	6.1	8.4
Washington	12.3	1.3	1.4	2.8
Wyoming	-6.8	-1.5	9.1	7.5

NOTE: Calculations are based on unrounded numbers. Includes most kindergarten and some nursery school enrollment.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared June 2000.)

Table 6.—Enrollment in grades K–8 in public schools, by region and state, with projections: Fall 1992 to fall 2010

(In thousands)

Region and state	Actual							Projected		
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
United States	31,088	31,504	31,898	32,341	32,764	33,073	33,344	33,437	33,521	33,557
Northeast	5,387	5,486	5,568	5,659	5,729	5,774	5,819	5,806	5,793	5,775
Connecticut	362	369	376	384	389	394	399	404	400	399
Maine	156	157	156	156	156	153	151	147	144	143
Massachusetts	630	646	659	675	688	696	705	707	704	703
New Hampshire	133	136	139	142	144	145	147	146	145	144
New Jersey	818	844	862	880	903	921	936	936	940	940
New York	1,893	1,921	1,949	1,980	2,000	2,011	2,028	2,020	2,022	2,015
Pennsylvania	1,216	1,233	1,244	1,257	1,264	1,266	1,267	1,263	1,257	1,251
Rhode Island	106	107	108	110	110	112	112	112	111	110
Vermont	74	75	76	75	75	74	73	71	71	70
Midwest	7,312	7,348	7,387	7,448	7,504	7,554	7,564	7,551	7,526	7,518
Illinois	1,345	1,356	1,368	1,390	1,412	1,438	1,452	1,474	1,480	1,485
Indiana	677	679	679	684	689	693	697	705	710	714
Iowa	349	348	346	344	342	338	337	336	332	331
Kansas	328	330	329	329	328	328	327	325	325	324
Michigan	1,165	1,160	1,170	1,192	1,212	1,236	1,245	1,228	1,217	1,213
Minnesota	569	577	581	586	589	588	586	582	577	574
Missouri	622	622	628	636	643	650	651	649	648	648
Nebraska	202	203	203	203	203	202	200	198	198	198
North Dakota	85	84	83	82	82	80	77	75	74	74
Ohio	1,284	1,290	1,295	1,297	1,299	1,299	1,301	1,293	1,286	1,280
South Dakota	98	102	102	101	99	98	91	89	88	88
Wisconsin	588	596	601	603	605	604	601	595	592	589
South	11,287	11,440	11,604	11,772	11,911	12,022	12,127	12,188	12,253	12,267
Alabama	535	536	535	539	540	541	542	542	549	550
Arkansas	318	318	319	322	324	322	319	320	321	321
Delaware	76	77	77	77	78	79	80	80	81	81
District of Columbia	61	61	62	62	61	60	57	54	53	53
Florida	1,470	1,515	1,570	1,614	1,653	1,680	1,704	1,715	1,715	1,711
Georgia	892	910	935	966	991	1,011	1,029	1,040	1,057	1,065
Kentucky	470	467	467	468	466	474	465	466	466	465
Louisiana	591	587	584	580	575	564	558	553	551	546
Maryland	556	569	581	590	597	602	607	611	614	615
Mississippi	370	369	367	366	364	365	365	366	371	372
North Carolina	811	828	847	871	886	906	921	941	946	949
Oklahoma	439	441	443	446	445	445	448	439	434	430
South Carolina	467	467	469	463	468	473	478	473	473	472
Tennessee	622	630	641	651	657	653	665	669	678	683
Texas	2,634	2,681	2,721	2,757	2,800	2,832	2,868	2,896	2,918	2,926
Virginia	758	767	774	788	796	807	815	817	825	829
West Virginia	219	216	213	211	209	207	206	204	202	201
West	7,102	7,230	7,340	7,462	7,620	7,723	7,834	7,893	7,948	7,997
Alaska	92	94	94	93	94	96	97	97	98	99
Arizona	498	526	543	549	588	596	623	640	650	659
California	3,851	3,903	3,956	4,041	4,129	4,196	4,270	4,290	4,309	4,329
Colorado	451	460	470	479	487	494	501	506	509	512
Hawaii	129	132	134	136	136	136	135	135	138	139
Idaho	165	167	169	170	169	169	169	169	174	177
Montana	115	117	117	116	115	112	110	107	108	108
Nevada	165	175	185	196	208	219	229	241	246	250
New Mexico	217	226	229	229	230	236	232	233	238	241
Oregon	365	368	372	376	380	381	380	381	381	382
Utah	330	330	328	328	328	329	329	332	335	338
Washington	652	660	673	680	687	694	696	699	699	700
Wyoming	72	71	70	69	67	66	64	62	63	63

Table 6.—Enrollment in grades K–8 in public schools, by region and state, with projections: Fall 1992 to fall 2010—Continued

(In thousands)

Region and state	Projected								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	33,543	33,442	33,237	33,051	32,915	32,835	32,825	32,877	32,999
Northeast	5,740	5,687	5,615	5,552	5,500	5,459	5,433	5,412	5,390
Connecticut	395	390	384	378	373	367	365	364	363
Maine	142	141	139	139	138	139	140	141	140
Massachusetts	699	692	683	675	667	661	658	656	652
New Hampshire	144	143	142	142	142	142	143	143	143
New Jersey	937	930	920	911	904	898	894	891	890
New York	2,001	1,981	1,953	1,929	1,908	1,891	1,878	1,867	1,858
Pennsylvania	1,242	1,231	1,217	1,204	1,195	1,188	1,182	1,177	1,171
Rhode Island	110	108	107	105	104	103	103	103	103
Vermont	70	70	69	69	69	70	70	70	70
Midwest	7,501	7,464	7,400	7,345	7,303	7,270	7,257	7,248	7,248
Illinois	1,485	1,480	1,464	1,449	1,436	1,423	1,415	1,409	1,410
Indiana	715	714	710	706	703	699	697	694	693
Iowa	330	329	326	324	323	321	321	321	321
Kansas	324	324	323	323	323	324	325	326	327
Michigan	1,208	1,198	1,182	1,167	1,157	1,149	1,146	1,143	1,139
Minnesota	571	568	563	560	559	558	559	561	563
Missouri	648	646	643	639	634	633	633	634	635
Nebraska	198	198	197	197	198	199	199	200	201
North Dakota	73	73	73	73	73	74	74	74	74
Ohio	1,274	1,264	1,252	1,240	1,231	1,223	1,219	1,215	1,211
South Dakota	87	87	88	88	89	90	91	92	92
Wisconsin	587	584	581	578	578	577	578	579	580
South	12,276	12,249	12,197	12,139	12,090	12,055	12,031	12,033	12,077
Alabama	552	551	550	547	545	544	541	539	538
Arkansas	321	319	316	314	313	312	310	309	308
Delaware	81	81	81	80	80	80	79	79	79
District of Columbia	52	51	50	49	49	49	50	51	51
Florida	1,704	1,691	1,674	1,656	1,641	1,627	1,621	1,622	1,631
Georgia	1,072	1,075	1,074	1,074	1,074	1,074	1,072	1,072	1,076
Kentucky	465	462	462	458	454	450	447	444	442
Louisiana	543	540	537	534	532	531	530	530	532
Maryland	614	611	605	601	598	597	596	596	596
Mississippi	372	372	371	369	367	366	363	360	359
North Carolina	947	941	932	920	908	897	890	885	884
Oklahoma	427	423	419	415	413	411	412	414	416
South Carolina	469	465	464	459	455	453	452	452	451
Tennessee	686	686	683	681	680	680	677	676	676
Texas	2,939	2,950	2,955	2,962	2,970	2,975	2,985	3,004	3,039
Virginia	832	830	826	822	818	816	813	810	810
West Virginia	201	199	198	196	195	193	192	191	189
West	8,027	8,042	8,025	8,015	8,022	8,052	8,104	8,185	8,283
Alaska	99	100	101	101	102	104	106	108	109
Arizona	666	670	671	670	668	666	665	667	674
California	4,332	4,328	4,300	4,281	4,274	4,287	4,322	4,378	4,440
Colorado	515	518	518	519	519	520	522	524	527
Hawaii	140	142	142	144	146	148	150	151	154
Idaho	180	183	185	189	192	196	198	199	202
Montana	108	109	110	111	112	114	115	116	117
Nevada	254	256	256	254	252	249	248	247	248
New Mexico	244	246	249	252	256	260	263	266	270
Oregon	382	381	380	380	380	381	383	385	387
Utah	341	344	347	350	353	357	359	362	367
Washington	702	702	700	699	698	700	704	708	714
Wyoming	63	64	65	66	68	69	71	72	73

NOTE: Some data have been revised from previously published figures. Includes most kindergarten and some nursery school enrollment. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared June 2000.)

Table 7.—Percent change in grades K–8 enrollment in public schools, by region and state, with projections: Fall 1992 to fall 2010

Region and state	Actual	Projected		
	1992 to 1999	1999 to 2004	2004 to 2010	1999 to 2010
United States	7.6	-0.6	-0.7	-1.3
Northeast	7.8	-3.3	-4.0	-7.2
Connecticut	11.8	-5.1	-5.3	-10.1
Maine	-6.0	-5.2	0.8	-4.5
Massachusetts	12.3	-3.4	-4.5	-7.8
New Hampshire	9.7	-2.5	0.4	-2.0
New Jersey	14.5	-1.7	-3.3	-5.0
New York	6.7	-3.3	-4.9	-8.0
Pennsylvania	3.8	-3.6	-3.8	-7.2
Rhode Island	6.2	-4.9	-3.6	-8.3
Vermont	-4.1	-2.3	0.9	-1.4
Midwest	3.3	-2.0	-2.1	-4.0
Illinois	9.6	-0.7	-3.7	-4.3
Indiana	4.2	0.7	-2.5	-1.8
Iowa	-3.7	-2.8	-1.5	-4.3
Kansas	-0.9	-0.7	1.4	0.7
Michigan	5.4	-3.8	-3.6	-7.3
Minnesota	2.3	-3.3	0.0	-3.3
Missouri	4.4	-1.0	-1.2	-2.2
Nebraska	-2.1	-0.6	2.0	1.4
North Dakota	-11.1	-3.4	2.4	-1.0
Ohio	0.7	-3.2	-3.2	-6.3
South Dakota	-9.0	-1.7	5.1	3.3
Wisconsin	1.2	-2.5	-0.1	-2.6
South	8.0	0.1	-1.0	-0.9
Alabama	1.3	1.4	-2.1	-0.7
Arkansas	0.9	-1.3	-2.6	-3.8
Delaware	5.5	0.9	-2.7	-1.9
District of Columbia	-11.1	-8.1	3.1	-5.3
Florida	16.7	-2.4	-2.5	-4.9
Georgia	16.6	3.3	0.2	3.5
Kentucky	-0.9	-0.8	-4.3	-5.1
Louisiana	-6.3	-3.0	-0.9	-3.9
Maryland	9.9	-0.9	-1.6	-2.4
Mississippi	-1.0	1.2	-3.1	-1.9
North Carolina	16.1	-1.0	-5.2	-6.1
Oklahoma	0.0	-4.5	-0.7	-5.2
South Carolina	1.3	-1.9	-3.0	-4.8
Tennessee	7.7	2.1	-1.1	1.0
Texas	9.9	2.0	2.8	4.9
Virginia	7.8	1.1	-2.0	-0.9
West Virginia	-6.9	-3.0	-4.5	-7.3
West	11.1	1.7	3.2	4.9
Alaska	6.2	3.3	8.9	12.5
Arizona	28.5	4.9	0.3	5.3
California	11.4	0.2	3.3	3.5
Colorado	12.2	2.4	1.7	4.1
Hawaii	4.7	5.8	7.8	14.1
Idaho	2.8	9.6	8.8	19.3
Montana	-6.9	2.2	7.0	9.3
Nevada	45.7	6.2	-3.0	3.0
New Mexico	7.0	7.0	8.4	16.0
Oregon	4.3	-0.2	1.8	1.6
Utah	0.6	4.4	5.9	10.6
Washington	7.2	0.2	2.1	2.2
Wyoming	-13.0	3.7	13.2	17.3

NOTE: Calculations are based on unrounded numbers. Includes most kindergarten and some nursery school enrollment.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared June 2000.)

Table 8.—Enrollment in grades 9–12 in public schools, by region and state, with projections: Fall 1992 to fall 2010

(In thousands)

Region and state	Actual							Projected		
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
United States	11,735	11,961	12,213	12,500	12,847	13,054	13,191	13,375	13,505	13,619
Northeast	2,139	2,168	2,192	2,235	2,277	2,311	2,326	2,359	2,397	2,430
Connecticut	127	128	131	134	138	141	145	150	154	158
Maine	60	60	57	58	58	59	60	60	61	60
Massachusetts	230	232	235	240	246	253	258	265	272	280
New Hampshire	48	49	50	52	54	56	58	60	61	63
New Jersey	313	308	312	317	325	329	333	336	339	345
New York	796	813	817	833	843	851	849	857	874	884
Pennsylvania	502	511	521	531	541	549	549	554	560	564
Rhode Island	38	39	40	40	41	42	42	43	43	44
Vermont	25	28	29	30	31	32	32	33	33	33
Midwest	2,886	2,941	2,999	3,064	3,134	3,151	3,155	3,179	3,189	3,193
Illinois	529	537	548	553	561	560	560	576	587	595
Indiana	283	287	290	293	294	294	291	289	286	285
Iowa	146	151	155	158	161	163	162	162	161	159
Kansas	123	128	132	134	138	141	145	145	145	144
Michigan	439	439	445	450	473	467	475	477	477	479
Minnesota	224	233	240	249	258	266	270	273	275	275
Missouri	238	244	250	254	257	261	262	265	268	268
Nebraska	80	82	84	87	89	91	91	91	90	90
North Dakota	34	35	36	37	38	38	38	37	36	35
Ohio	511	517	519	539	546	548	541	541	539	538
South Dakota	37	41	42	43	44	45	42	41	40	38
Wisconsin	241	248	259	267	274	278	279	282	285	287
South	4,070	4,150	4,247	4,346	4,462	4,541	4,586	4,648	4,686	4,725
Alabama	196	199	201	207	208	208	206	203	201	200
Arkansas	124	127	128	131	133	134	133	132	131	129
Delaware	28	29	30	31	33	33	33	34	34	35
District of Columbia	20	19	18	18	18	17	15	14	15	14
Florida	512	526	542	563	589	614	634	656	677	693
Georgia	316	325	336	345	356	365	372	378	383	390
Kentucky	185	188	191	192	190	195	191	191	188	186
Louisiana	207	213	214	217	218	213	210	210	208	205
Maryland	196	203	210	215	222	229	235	243	247	251
Mississippi	137	137	139	140	140	140	137	135	133	130
North Carolina	304	305	309	312	324	330	334	342	349	358
Oklahoma	158	163	167	171	175	179	181	181	179	176
South Carolina	173	177	180	182	185	187	187	188	189	191
Tennessee	233	237	241	243	248	240	241	242	243	244
Texas	907	927	957	991	1,029	1,059	1,077	1,096	1,106	1,116
Virginia	274	278	286	292	300	304	309	314	318	320
West Virginia	99	99	98	96	95	94	92	90	87	86
West	2,640	2,701	2,775	2,854	2,974	3,051	3,125	3,188	3,233	3,271
Alaska	31	32	33	34	36	36	38	40	41	42
Arizona	176	183	195	195	211	218	226	235	243	250
California	1,404	1,424	1,452	1,495	1,557	1,608	1,656	1,690	1,717	1,744
Colorado	161	165	171	177	186	193	198	203	207	210
Hawaii	49	49	50	52	51	53	53	54	53	53
Idaho	67	70	72	74	76	76	76	76	74	73
Montana	45	46	48	49	50	50	50	50	50	49
Nevada	58	61	65	69	74	78	82	86	90	95
New Mexico	98	96	98	100	103	96	96	101	101	101
Oregon	145	148	150	152	158	160	163	166	166	166
Utah	134	141	146	149	154	154	153	150	148	145
Washington	245	256	265	277	287	297	302	308	312	313
Wyoming	29	29	30	31	32	32	31	31	30	30

Table 8.—Enrollment in grades 9–12 in public schools, by region and state, with projections: Fall 1992 to fall 2010—Continued

(In thousands)

Region and state	Projected								
	2002	2003	2004	2005	2006	2007	2008	2009	2010
United States	13,753	13,931	14,199	14,423	14,537	14,530	14,393	14,232	14,069
Northeast	2,471	2,512	2,560	2,583	2,578	2,548	2,496	2,451	2,422
Connecticut	162	166	170	172	172	172	167	163	159
Maine	60	59	58	58	56	54	53	51	52
Massachusetts	286	293	301	304	305	302	294	287	283
New Hampshire	64	65	66	65	65	64	62	61	61
New Jersey	354	364	374	381	383	381	375	370	365
New York	896	911	931	940	939	928	910	896	884
Pennsylvania	572	577	582	584	580	572	561	551	547
Rhode Island	44	45	46	47	46	46	44	43	42
Vermont	32	32	32	31	31	29	29	29	29
Midwest	3,197	3,210	3,252	3,290	3,304	3,293	3,244	3,202	3,168
Illinois	603	613	633	651	663	669	661	653	640
Indiana	287	292	300	307	309	311	309	307	305
Iowa	157	155	156	157	157	157	154	151	150
Kansas	143	142	142	142	141	141	140	140	140
Michigan	481	484	494	501	501	496	481	470	465
Minnesota	275	274	275	275	273	271	266	264	261
Missouri	269	270	272	276	281	280	277	272	268
Nebraska	88	87	87	88	87	87	86	86	86
North Dakota	34	33	32	31	30	30	30	30	30
Ohio	540	541	544	547	547	542	534	526	520
South Dakota	37	36	35	34	33	32	32	32	33
Wisconsin	285	284	283	282	281	278	275	272	271
South	4,764	4,829	4,913	4,993	5,047	5,061	5,050	5,013	4,946
Alabama	199	201	204	207	209	209	210	210	208
Arkansas	129	129	132	133	134	133	132	131	129
Delaware	35	35	36	36	37	37	37	37	36
District of Columbia	14	14	14	14	14	13	13	12	12
Florida	704	719	737	750	758	760	750	735	716
Georgia	397	408	421	431	437	440	443	445	441
Kentucky	184	184	183	185	189	189	190	188	185
Louisiana	202	199	197	196	196	194	194	192	189
Maryland	256	262	268	272	273	270	266	263	261
Mississippi	130	130	133	135	136	137	137	137	136
North Carolina	368	380	393	404	412	414	409	402	392
Oklahoma	174	173	173	174	174	173	170	166	163
South Carolina	192	196	193	196	197	193	193	189	187
Tennessee	247	252	259	265	267	267	267	267	266
Texas	1,127	1,137	1,155	1,172	1,188	1,206	1,216	1,217	1,204
Virginia	322	326	333	339	343	342	341	341	339
West Virginia	84	84	84	84	84	83	82	81	80
West	3,321	3,379	3,474	3,557	3,609	3,628	3,603	3,566	3,533
Alaska	42	43	43	44	44	44	44	43	44
Arizona	258	267	277	290	300	309	312	310	305
California	1,780	1,818	1,880	1,929	1,956	1,958	1,927	1,889	1,865
Colorado	211	214	218	222	225	228	228	228	226
Hawaii	53	54	55	55	55	55	55	56	57
Idaho	73	73	75	76	76	77	79	81	83
Montana	48	47	46	45	45	44	44	45	46
Nevada	100	106	113	120	126	132	133	132	128
New Mexico	101	103	104	105	106	105	107	109	110
Oregon	166	167	168	170	171	171	169	168	167
Utah	145	145	146	148	150	152	154	156	156
Washington	313	316	320	325	328	329	326	323	320
Wyoming	29	28	27	27	26	26	26	26	27

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared June 2000.)

Table 9.—Percent change in grades 9–12 enrollment in public schools, by region and state, with projections: Fall 1992 to fall 2010

Region and state	Actual	Projected		
	1992 to 1999	1999 to 2004	2004 to 2010	1999 to 2010
United States	14.0	6.2	-0.9	5.2
Northeast	10.3	8.5	-5.4	2.7
Connecticut	18.0	13.6	-6.4	6.3
Maine	0.4	-3.2	-11.6	-14.4
Massachusetts	15.3	13.2	-5.9	6.6
New Hampshire	24.9	9.2	-6.6	2.0
New Jersey	7.3	11.4	-2.5	8.7
New York	7.6	8.7	-5.1	3.2
Pennsylvania	10.5	4.9	-6.0	-1.3
Rhode Island	12.8	7.5	-8.2	-1.3
Vermont	33.7	-3.5	-8.5	-11.7
Midwest	10.2	2.3	-2.6	-0.4
Illinois	8.9	9.9	1.2	11.2
Indiana	2.0	3.6	1.7	5.4
Iowa	11.0	-4.0	-3.7	-7.6
Kansas	17.3	-2.0	-1.3	-3.3
Michigan	8.6	3.7	-5.9	-2.4
Minnesota	21.7	0.5	-4.9	-4.4
Missouri	11.6	2.7	-1.5	1.1
Nebraska	13.8	-3.9	-2.0	-5.8
North Dakota	8.7	-14.0	-6.6	-19.6
Ohio	5.8	0.6	-4.5	-3.9
South Dakota	11.3	-14.9	-6.0	-20.1
Wisconsin	17.1	0.2	-4.3	-4.1
South	14.2	5.7	0.7	6.4
Alabama	3.3	0.7	2.0	2.6
Arkansas	6.8	-0.5	-1.6	-2.2
Delaware	19.1	5.6	1.5	7.2
District of Columbia	-27.0	-4.5	-14.0	-17.8
Florida	28.3	12.3	-2.7	9.2
Georgia	19.8	11.4	4.8	16.7
Kentucky	2.9	-4.0	1.0	-3.0
Louisiana	1.3	-6.2	-3.8	-9.7
Maryland	23.7	10.5	-2.7	7.5
Mississippi	-1.3	-1.6	2.3	0.7
North Carolina	12.7	14.8	-0.3	14.5
Oklahoma	14.1	-4.1	-5.9	-9.7
South Carolina	8.6	2.6	-3.0	-0.5
Tennessee	3.8	6.8	2.8	9.7
Texas	20.7	5.4	4.2	9.9
Virginia	14.7	6.0	1.7	7.7
West Virginia	-9.6	-6.8	-3.7	-10.3
West	20.8	9.0	1.7	10.8
Alaska	28.3	9.6	0.6	10.3
Arizona	33.7	18.2	9.8	29.9
California	20.3	11.3	-0.8	10.4
Colorado	25.6	7.5	3.8	11.6
Hawaii	10.3	1.9	3.7	5.7
Idaho	12.9	-1.3	10.5	9.1
Montana	12.6	-8.1	-1.6	-9.6
Nevada	49.6	31.0	13.5	48.7
New Mexico	2.4	3.4	6.0	9.6
Oregon	14.4	1.7	-0.6	1.1
Utah	12.3	-2.9	6.7	3.6
Washington	25.9	4.0	-0.1	3.9
Wyoming	8.9	-11.8	-0.6	-12.3

NOTE: Calculations are based on unrounded numbers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public Elementary and Secondary Enrollment Model. (This table was prepared June 2000.)

Chapter 2

Higher Education Enrollment

Overall enrollment in institutions of higher education* is expected to rise between 1998 and the year 2010. Changes in age-specific enrollment rates and college-age populations will affect enrollment levels over the next 12 years (figures 13 and 14). The most important factor in the projected rise of college enrollment is the projected increase of 18 percent in the traditional college-age population of 18- to 24-year-olds from 1998 to 2010 (table B4). The 25- to 29-year-old population is projected to decrease by 6 percent between 1998 and 2002, and then increase by 14 percent between 2002 and 2010, for a net increase of 7 percent. The 30- to 34-year-old population will decrease by 6 percent between 1998 and 2010. The 35- to 44-year-old population will increase by 1 percent between 1998 and 2000, and then decrease by 12 percent between 2000 and 2010. The increases in the younger population are expected to offset the loss of students from the older populations, thereby contributing to the increases in college enrollment over the projection period. The enrollment projections do not take into account such factors as the cost of a college education, the economic value of an education, and the impact of long distance learning due to technological changes. These factors may produce changes in enrollment levels. Projections of higher education enrollment that have been produced over the past 13 years are more accurate than projections of master's degrees and doctor's degrees, but less accurate than projections of public elementary and secondary enrollment that NCES has published over the same time period. For more information, see appendix A1, page 115.

Total Higher Education Enrollment

College enrollment increased from 12.2 million in 1985 to 14.5 million in 1992. Then it decreased to 14.3 million in 1995, before rising to 14.6 million in 1998 (table 10 and figure 15). Under the middle alternative, college enrollment is projected to rise to 17.5 million by the year 2010, an increase of 20 percent from 1998. This will represent an average annual growth rate of 1.5 percent over the projection period. For a discussion of the various alternatives, see page 27.

The following tabulation shows key enrollment statistics for the average annual rate of growth (in percent) for 1985-98 and alternative projected rates of change for 1998-2010 (Calculations are based on unrounded numbers.)

Average annual rate of change (in percent)

	1985-98	Projected 1998-2010		
		Low	Middle	High
Total	1.4	1.3	1.5	1.8
Men	0.6	1.1	1.2	1.4
Women	2.0	1.4	1.7	2.1
Full-time	1.4	1.5	1.7	2.0
Part-time	1.4	1.0	1.2	1.5
Public	1.4	1.3	1.5	1.8
Private	1.2	1.3	1.5	1.8
4-year	1.2	1.4	1.5	1.9
2-year	1.7	1.2	1.4	1.7
Undergraduate	1.3	1.4	1.6	1.9
Graduate	1.8	0.8	1.0	1.4
First-professional	0.4	0.7	0.8	1.2
Full-time-equivalent	1.4	1.4	1.6	1.9

Under the low alternative, college enrollment is projected to increase from an estimated 14.6 million in 1998 to 17.1 million by the year 2010. This will represent an average annual growth rate of 1.3 percent, for an increase of 17 percent over the projection period.

Under the high alternative, college enrollment is expected to increase from an estimated 14.6 million in 1998 to 18.2 million by the year 2010. This will represent an average annual growth rate of 1.8 percent, for an increase of 24 percent over the projection period.

* This term applies mainly to those institutions that provide study beyond secondary school and that offer programs terminating in an associate, baccalaureate, or higher degree.

Enrollment, by Sex of Student

Women played a major role in the increase of enrollment between 1985 and 1998. The enrollment of women in college increased from 6.4 million in 1985 to an estimated 8.3 million in 1998, representing an average annual growth rate of 2.0 percent, for a 29-percent increase over the period (figure 17). Under the middle alternative, enrollment of women is expected to increase to 10.2 million by the year 2010, an increase of 22 percent from 1998, representing an average annual growth rate of 1.7 percent. As a share of total college enrollment, women were 57 percent of all college students in 1998 compared with 52 percent in 1985. Women are expected to increase their share to 58 percent of college enrollment in the year 2010.

The enrollment of men in college increased from 5.8 million in 1985 to 6.5 million in 1992, before decreasing to an estimated 6.3 million in 1998. Under the middle alternative, enrollment of men is expected to increase to 7.3 million by the year 2010, a 16-percent increase from 1998, for an average annual growth rate of 1.2 percent.

Enrollment, by Attendance Status

Full-time enrollment increased from 7.1 million in 1985 to an estimated 8.4 million in 1998 (figure 19). This is an average annual growth rate of 1.4 percent, for an increase of 19 percent over the period. Under the middle alternative, full-time enrollment is expected to increase another 22 percent to 10.3 million by the year 2010, representing an average annual growth rate of 1.7 percent.

Part-time enrollment increased from 5.2 million in 1985 to an estimated 6.2 million in 1998. This is an average annual growth rate of 1.4 percent, for an increase of 20 percent over the period. Under the middle alternative, part-time enrollment is expected to increase at an average annual rate of 1.2 percent and reach 7.2 million by the year 2010, for an increase of 16 percent over the projection period.

Enrollment, by Age

The alternative projections of higher education enrollment by age, sex, and attendance status are shown in tables 13A and 13B (middle alternative), table 14 (low alternative), and table 15 (high alternative). Projections of college attendance rates appear in appendix table A1.3. These projections are based on age-specific enrollment data from the Bureau of the Census and enrollment data from NCES.

Under the middle alternative, the period from 1990 to 2010 will be one of change in the age distribution of college students. In contrast to recent patterns, younger students are expected to become more prevalent on college campuses. The enrollment of students who are 18- to 24-years old increased from 7.9 million in 1990 to an estimated 8.4 million in 1998, an increase of 7 percent (tables 13A and 13B and figure 31). However, this number is expected to increase to 10.5 million by the year 2010, an increase of 25 percent from 1998. As a result, the proportion of students who are 18- to 24-years old, which remained at 57 percent in 1990 and 1998, is projected to be 60 percent by the year 2010.

The enrollment of students who are 25 years and over increased from 5.8 million in 1990 to an estimated 6.1 million in 1998, an increase of 5 percent. This number is projected to be 6.8 million in 2010, an increase of 11 percent. The proportion of students 25 years old and over remained at 42 percent in 1990 and 1998. This proportion is projected to be 39 percent by the year 2010.

Enrollment, by Control of Institution

Enrollment in public institutions grew from 9.5 million in 1985 to an estimated 11.4 million in 1993, and then decreased to 11.1 million 1996, followed by a rise to 11.4 million in 2010, for a net increase of 20 percent over the period (figure 21). Under the middle alternative, public enrollment is expected to increase to 13.6 million by 2010, rising at an average annual rate of 1.5 percent, for an increase of 19 percent over the projection period.

Enrollment in private institutions, which include nonprofit and proprietary, increased from 2.8 million in 1985 to an estimated 3.2 million in 1998, increasing at an average annual rate of 1.2 percent, for an increase of 17 percent over the period. Under the middle alternative, private enrollment is expected to increase to 3.9 million by 2010, rising at an average annual rate of 1.5 percent, for an increase of 20 percent over the projection period.

Enrollment, by Type of Institution

Enrollment in 4-year institutions increased from 7.7 million in 1985 to an estimated 9.0 million in 1998, increasing at an average annual rate of 1.2 percent, for a 17 percent increase over the period (table 11 and figure 23). Under the middle alternative, enrollment in 4-year institutions is expected to rise to 10.8 million by the year 2010, increasing at an average annual rate of 1.5 percent, for a 20-percent increase over the projection period.

Enrollment in 2-year institutions rose from 4.5 million in 1985 to 5.7 million in 1992 and then decreased to 5.6 million in 1998, for a net increase of 24-percent over the period (table 12). Under the middle alternative, enrollment in 2-year institutions is expected to rise to 6.7 million by the year 2010, increasing at an average annual rate of 1.4 percent, for a 19-percent increase over the projection period.

Enrollment, by Level

Undergraduate enrollment increased from 10.6 million in 1985 to an estimated 12.6 million in 1998, increasing at an average annual rate of 1.3 percent, for a 19-percent increase over the period (table 21 and figure 25). Under the middle alternative, undergraduate enrollment is expected to increase to 15.2 million by the year 2010, at a growth rate of 1.6 percent per year, for a 21-percent increase over the projection period.

Graduate enrollment rose from 1.4 million in 1985 to an estimated 1.7 million in 1998, at an average annual growth rate of 1.8 percent, for a 27-percent increase over the period (table 24 and figure 27). Under the middle alternative, graduate enrollment is expected to increase to 2.0 million by the year 2010, increasing at an average annual rate of 1.0 percent, for a 13-percent increase over the projection period.

First-professional enrollment increased from 274,000 in 1985 to an estimated 288,000 in 1998, an average annual growth rate of 0.4 percent, for a 5-percent increase over the period (table 27 and figure 27). Under the middle alternative, first-professional enrollment is expected to increase to 317,000 by 2010. This represents an annual growth rate of 0.8 percent over the projection period, a 10-percent increase from 1998.

Full-Time-Equivalent Enrollment

Full-time-equivalent enrollment increased from 8.9 million in 1985 to an estimated 10.7 million in 1998, increasing at an average annual rate of 1.4 percent, for a 19-percent increase over the period (table 30 and figure 29). Under the middle alternative, full-time-equivalent enrollment is expected to increase to 12.9 million by the year 2010, increasing at an average annual rate of 1.6 percent, for a 21-percent increase over the projection period.

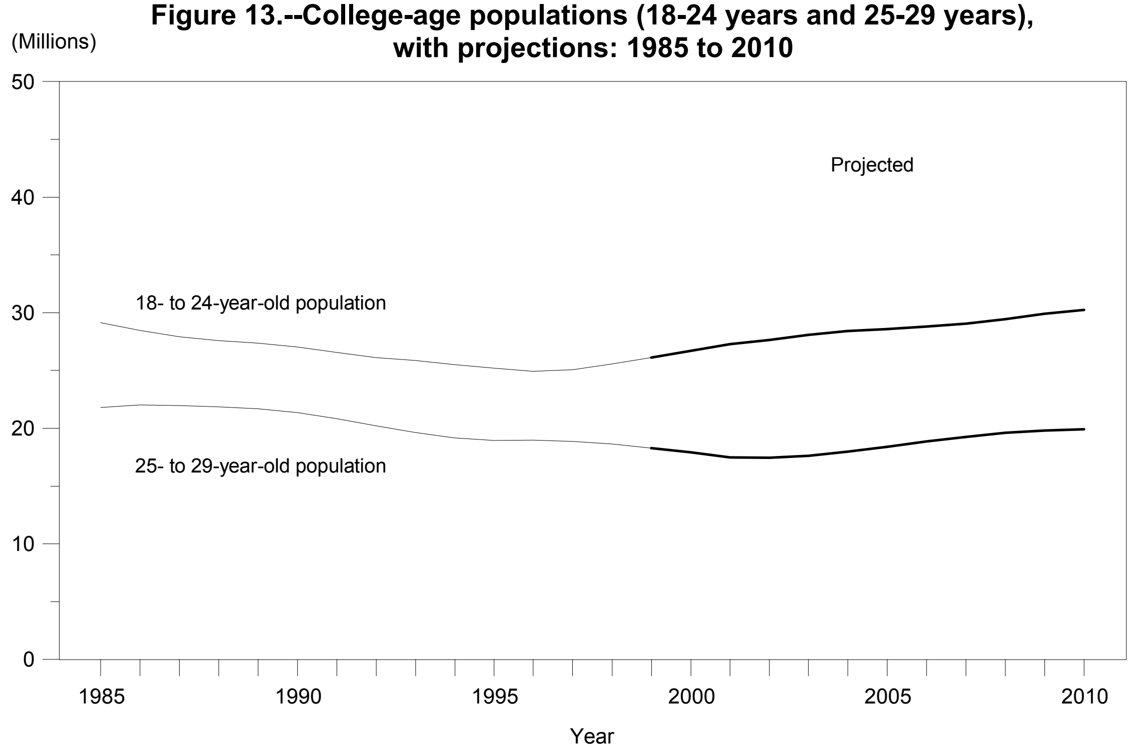
Alternative Projections Based on Three Economic Scenarios

Higher education enrollment projections were based on projected enrollment rates, by age and sex, which were then applied to population projections by age and sex developed by the Bureau of the Census. The middle series population projections, which assume middle fertility and yearly net migration, were used.

Three sets of projections are presented for enrollment in institutions of higher education to indicate a range of possible outcomes. Each set of projections is based on alternative assumptions concerning the economy. The middle, low, and high alternatives of college enrollment reflect the base, pessimistic and optimistic scenarios of the economy developed by the company, Standard & Poor's DRI, for the projections of disposable income and unemployment rates. Under the three alternatives, full-time and part-time enrollment rates by age of men and women are modeled. The age-specific enrollment rates of men and women enrolled full time are a function of dummy variables by age, log of a four-period weighted average of real disposable income per capita, and log unemployment rate by age group. The age-specific enrollment rates of men and women enrolled part time are a function of dummy variables by age and log of a four-period weighted average of real disposable income per capita. These relationships will continue through 2010. For more information, see appendix A, section A.1.

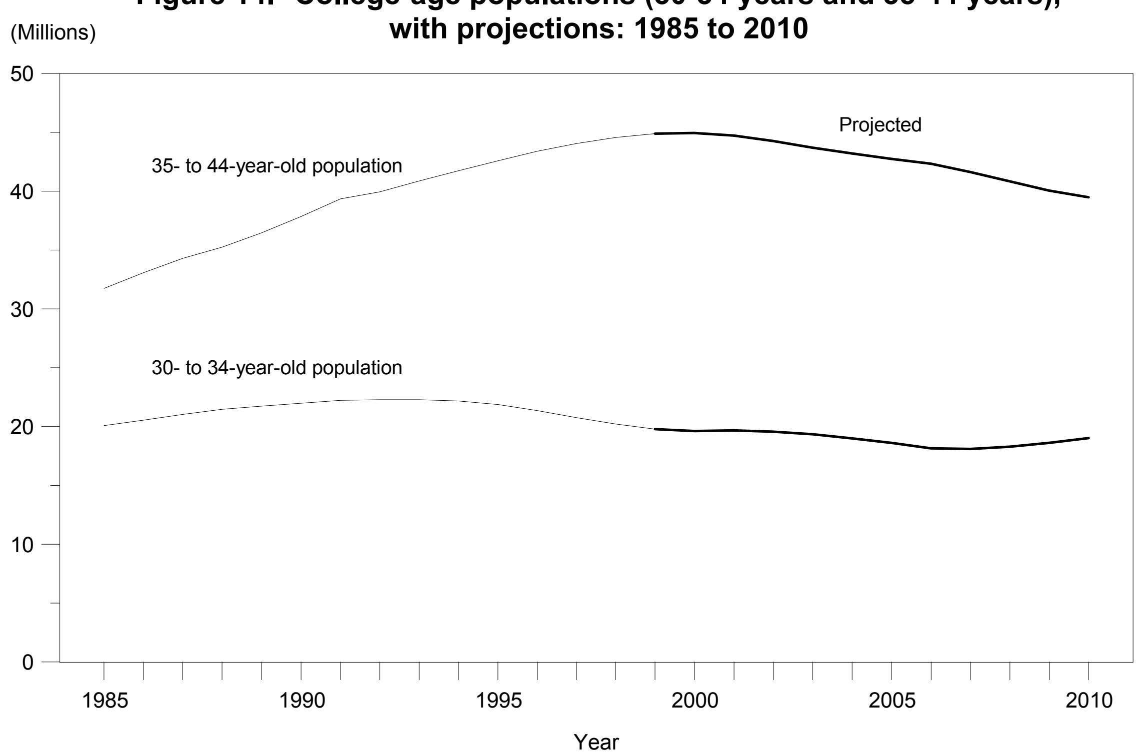
The key economic factors of the higher education enrollment model are household income, which represents ability to pay, and an age-specific unemployment rate, which acts as a proxy for opportunity costs faced by students. Both of these measures are likely to decline during a weak or pessimistic economy, with the result that the estimated opportunity costs will be lower. This will have a positive impact on higher education enrollment, as students face less attractive alternatives. This will be apparent in the short term, resulting in a potential reversal in the expected pattern across the alternative economic scenarios. As a result, the high alternative projections will be lower than the low alternative projections. However, in the long term, the effect of the per capita income variable dominates the effects of the unemployment rate. As expected, this results in a pattern where the high alternative projections are greater than the low alternative projections.

Figure 13.--College-age populations (18-24 years and 25-29 years), with projections: 1985 to 2010



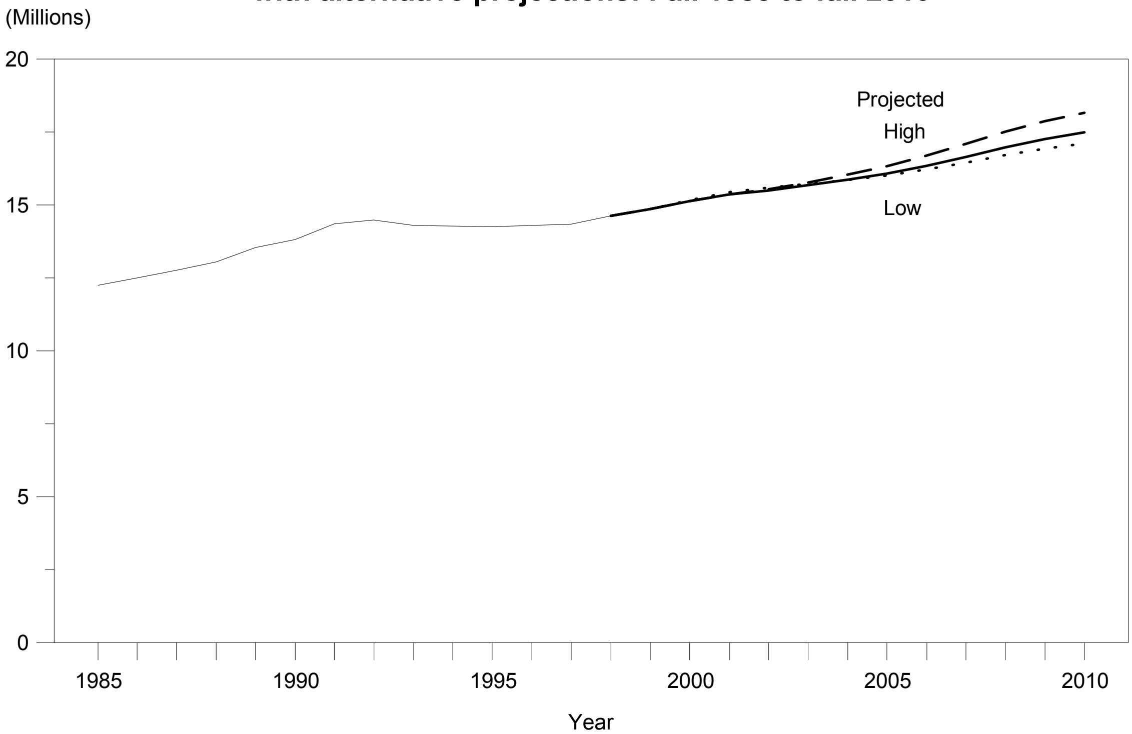
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 14.--College-age populations (30-34 years and 35-44 years), with projections: 1985 to 2010



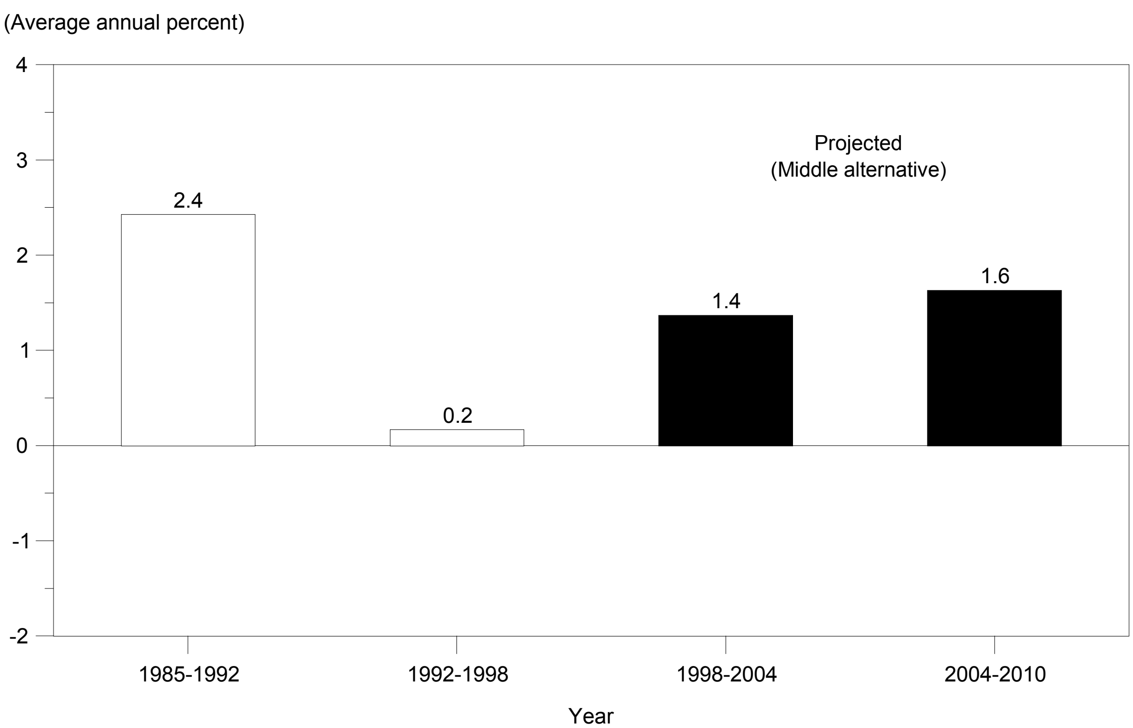
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 15.--Enrollment in institutions of higher education, with alternative projections: Fall 1985 to fall 2010



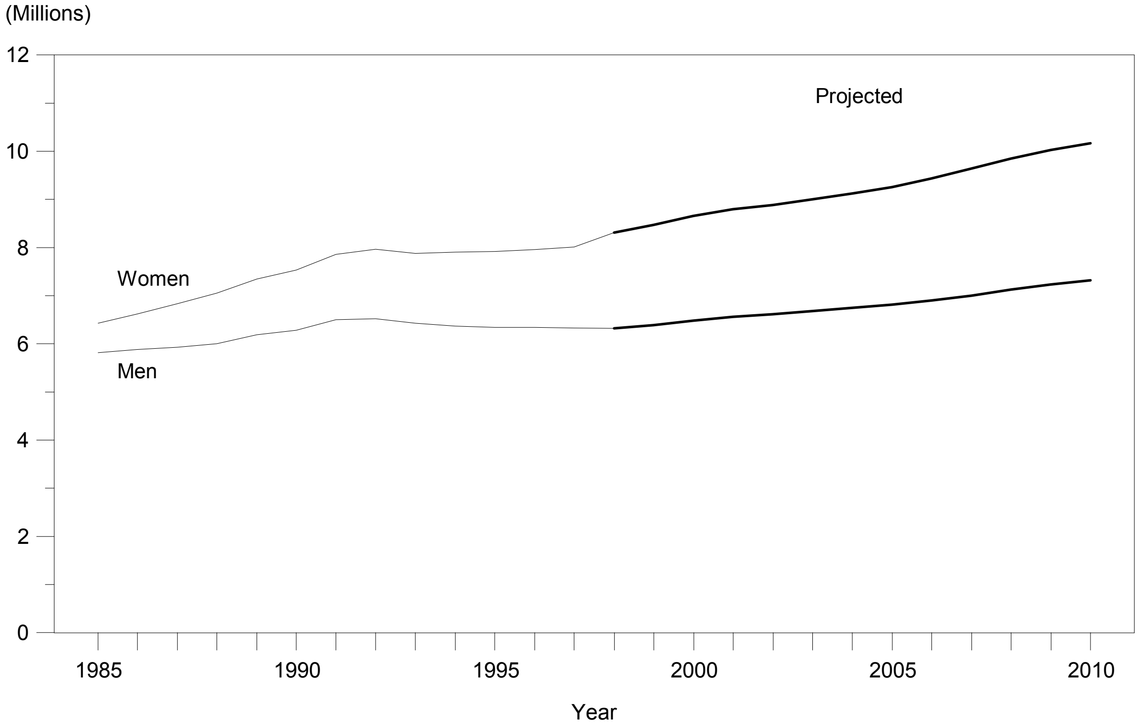
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 16.--Average annual growth rates for total higher education enrollment: Fall 1985 to fall 2010



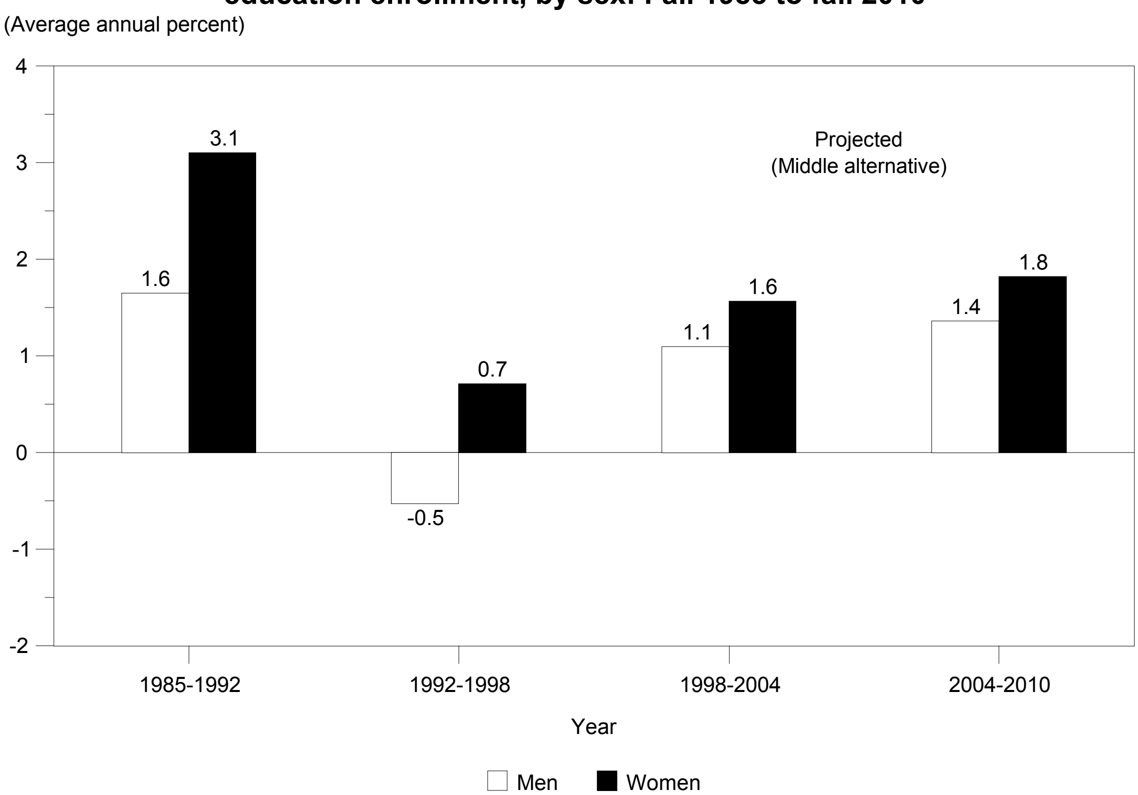
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 17.--Enrollment in institutions of higher education, by sex, with middle alternative projections: Fall 1985 to fall 2010



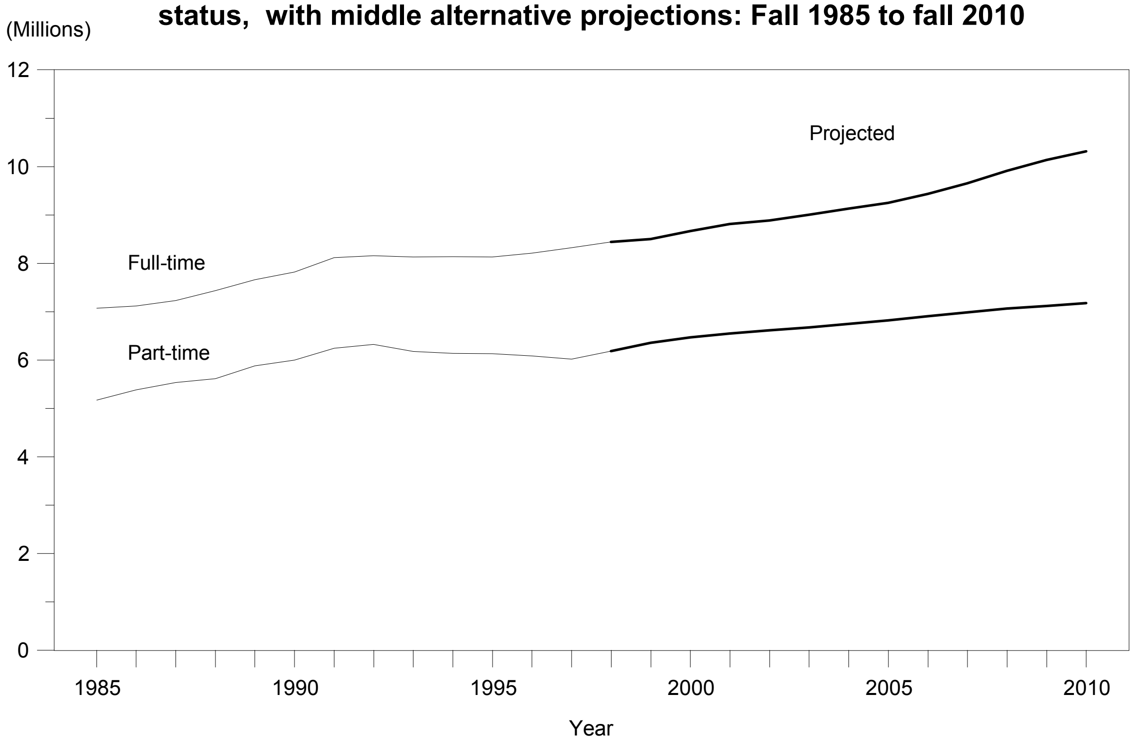
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 18.--Average annual growth rates for total higher education enrollment, by sex: Fall 1985 to fall 2010



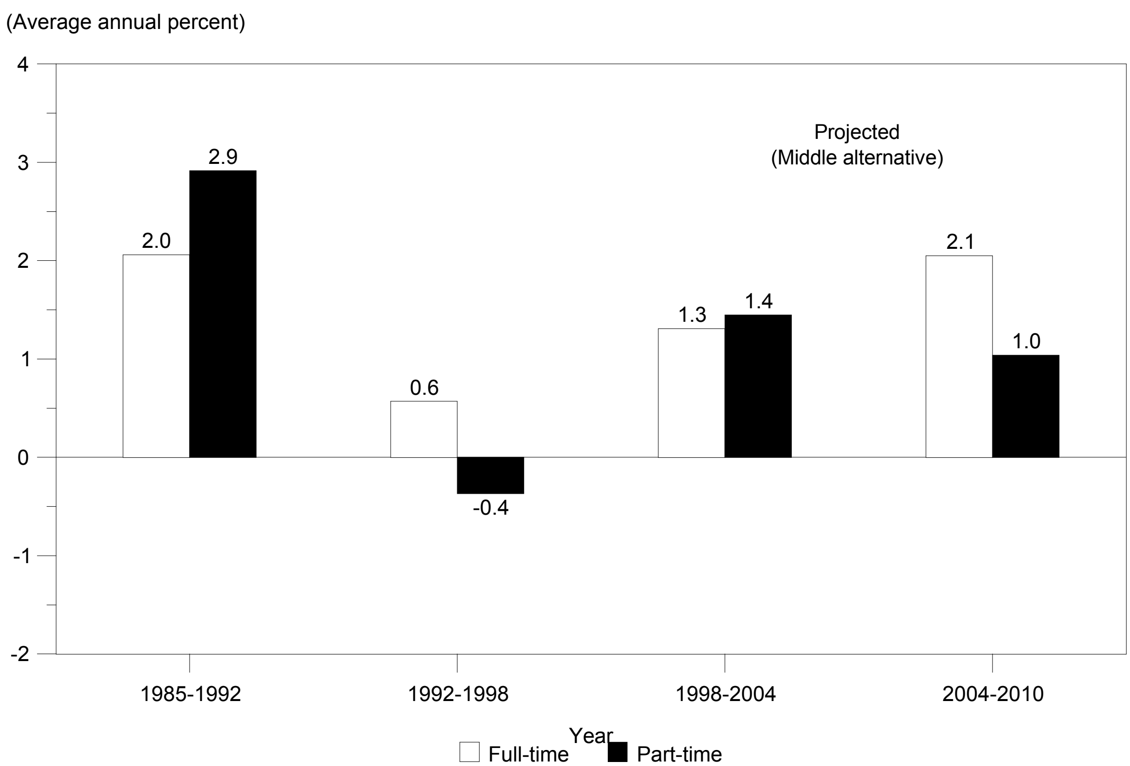
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 19.--Enrollment in institutions of higher education, by attendance status, with middle alternative projections: Fall 1985 to fall 2010



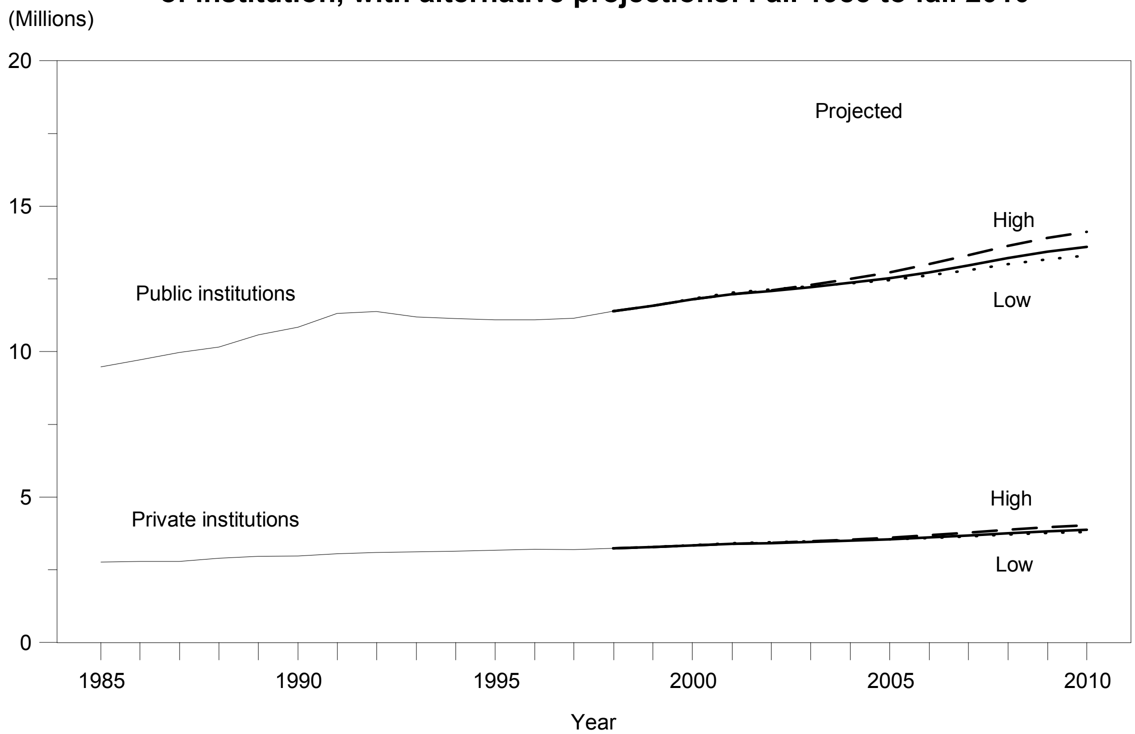
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 20.--Average annual growth rates for total higher education enrollment, by attendance status: Fall 1985 to fall 2010



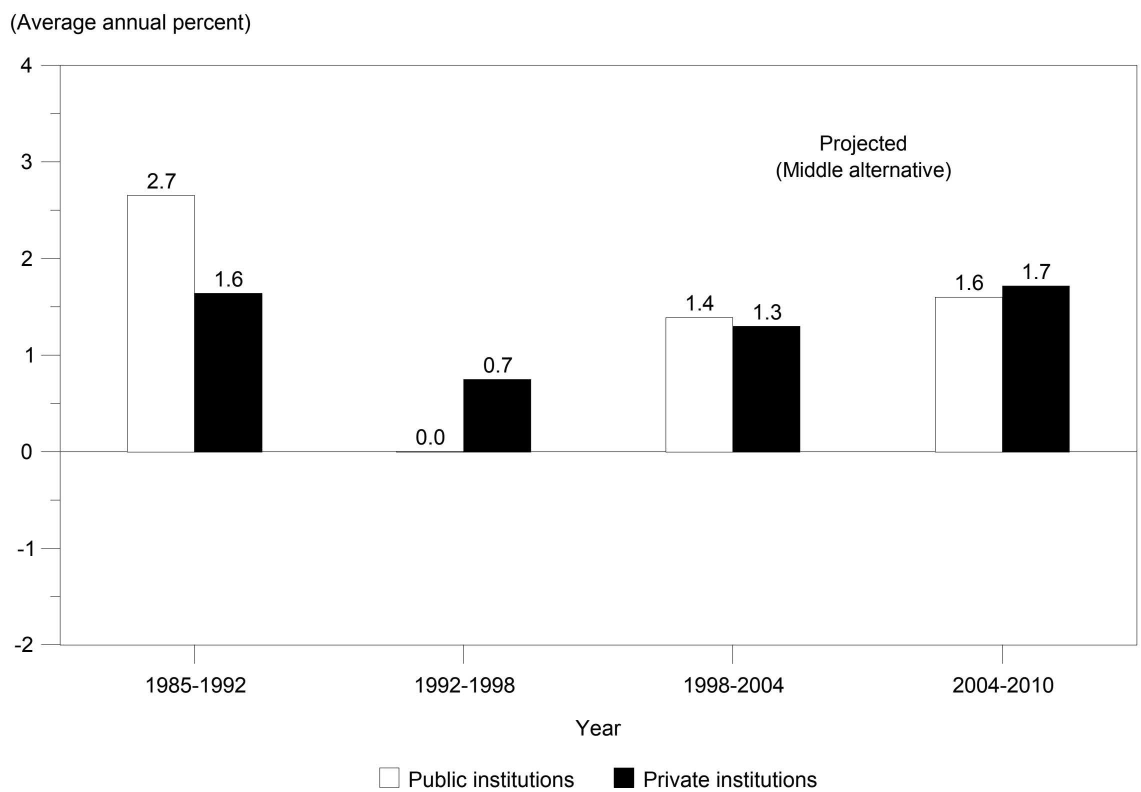
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 21.--Enrollment in institutions of higher education, by control of institution, with alternative projections: Fall 1985 to fall 2010



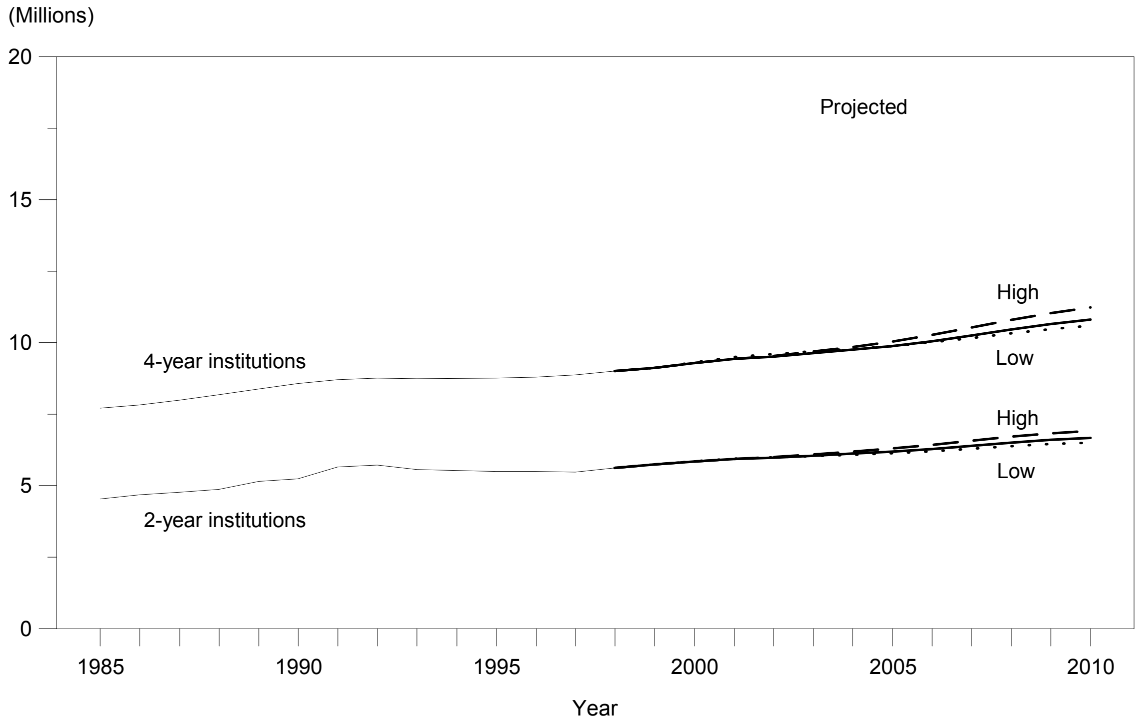
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 22.--Average annual growth rates for total higher education enrollment, by control of institution: Fall 1985 to 2010



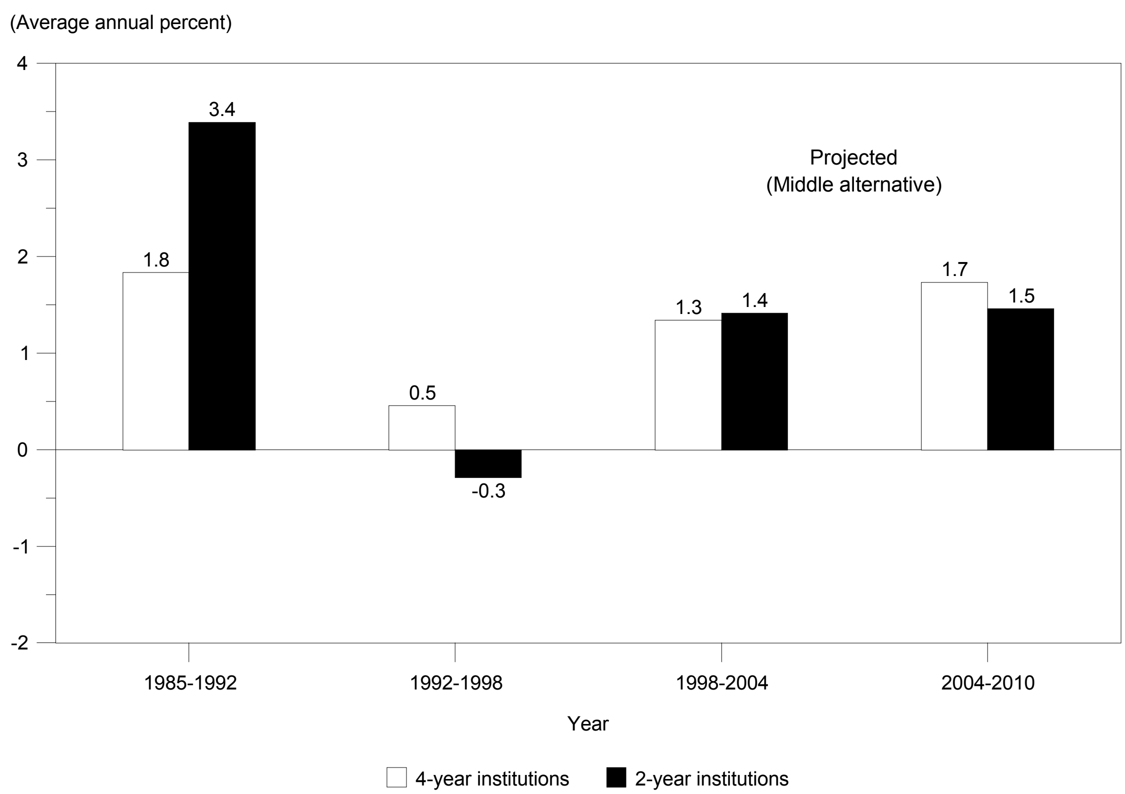
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 23.--Enrollment in institutions of higher education, by type of institution, with alternative projections: Fall 1985 to fall 2010



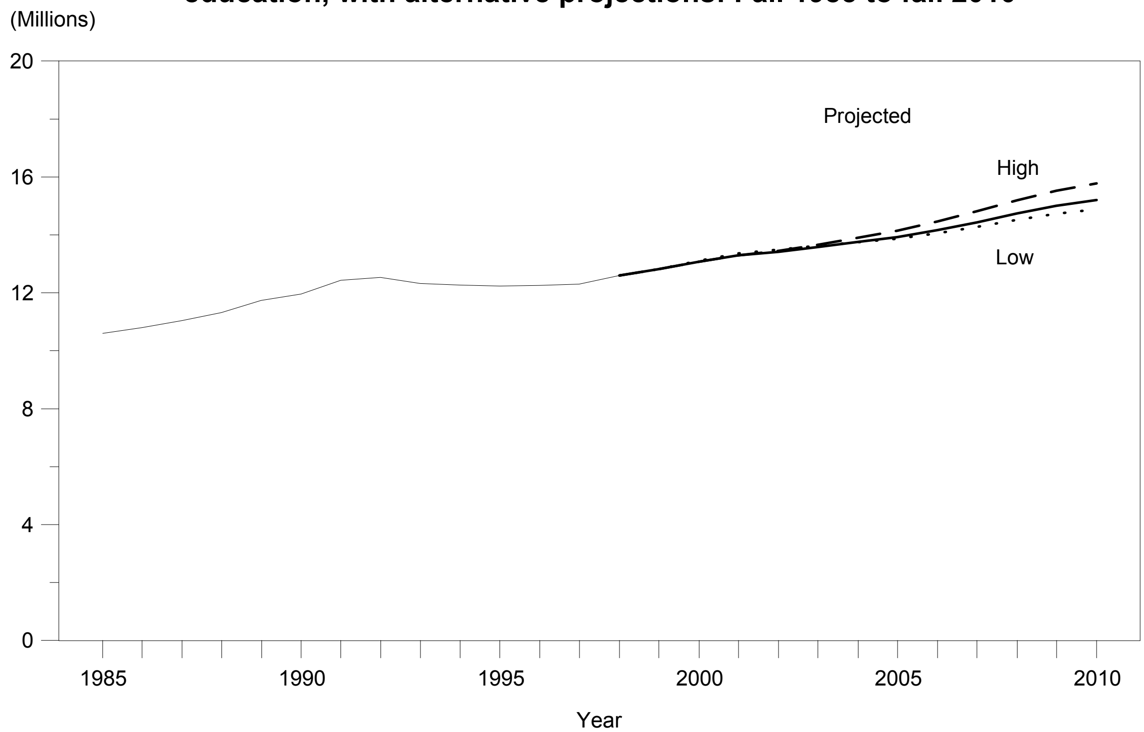
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 24.--Average annual growth rates for total higher education enrollment, by type of institution: Fall 1985 to fall 2010



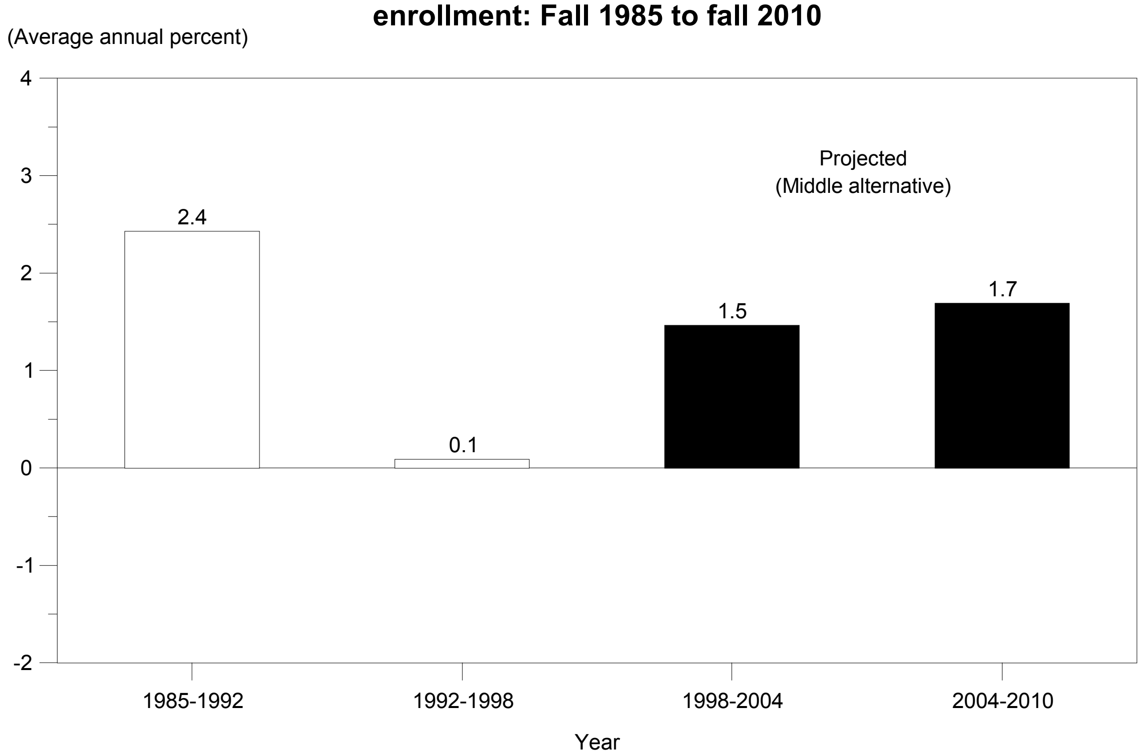
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 25.--Undergraduate enrollment in institutions of higher education, with alternative projections: Fall 1985 to fall 2010



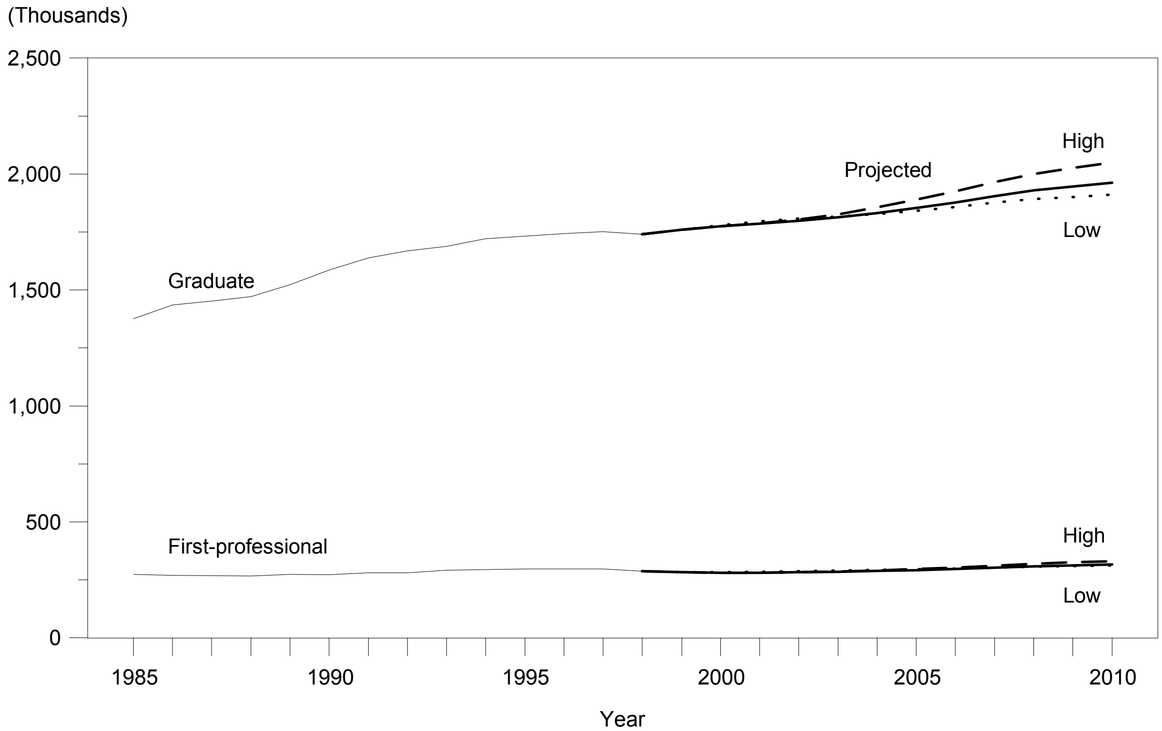
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 26.--Average annual growth rates for undergraduate enrollment: Fall 1985 to fall 2010



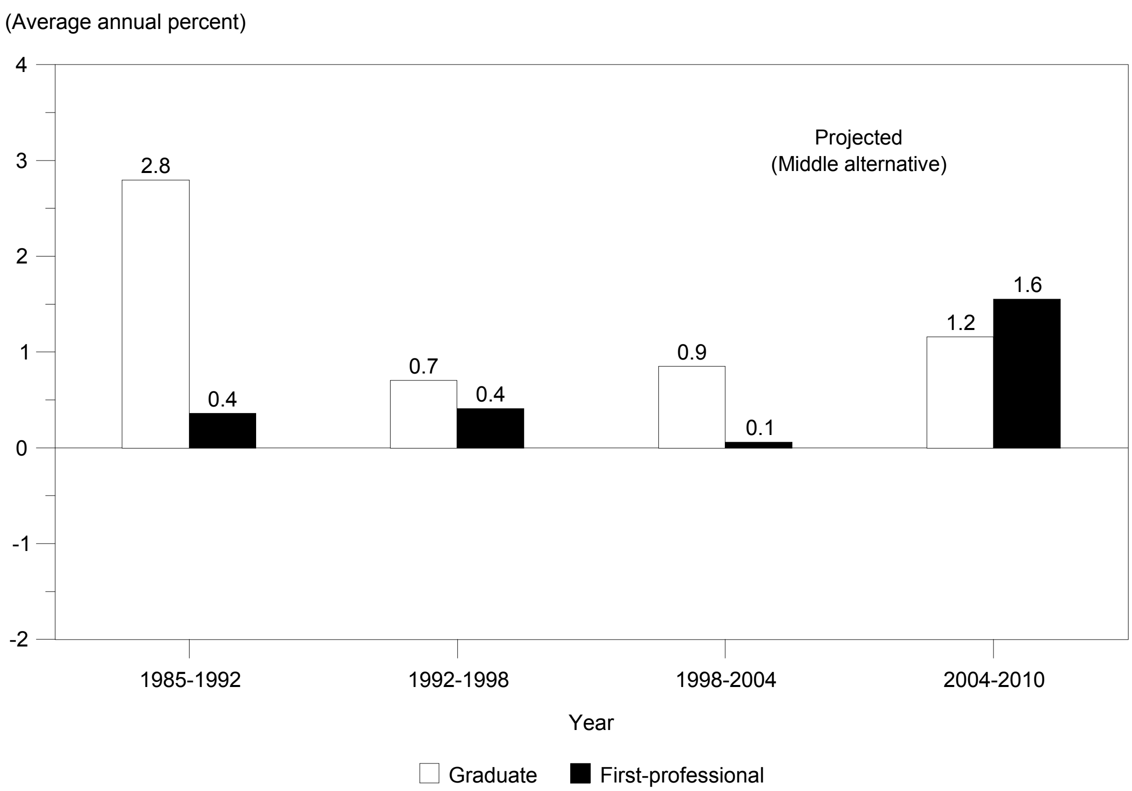
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 27.--Postbaccalaureate enrollment in institutions of higher education, with alternative projections: Fall 1985 to fall 2010



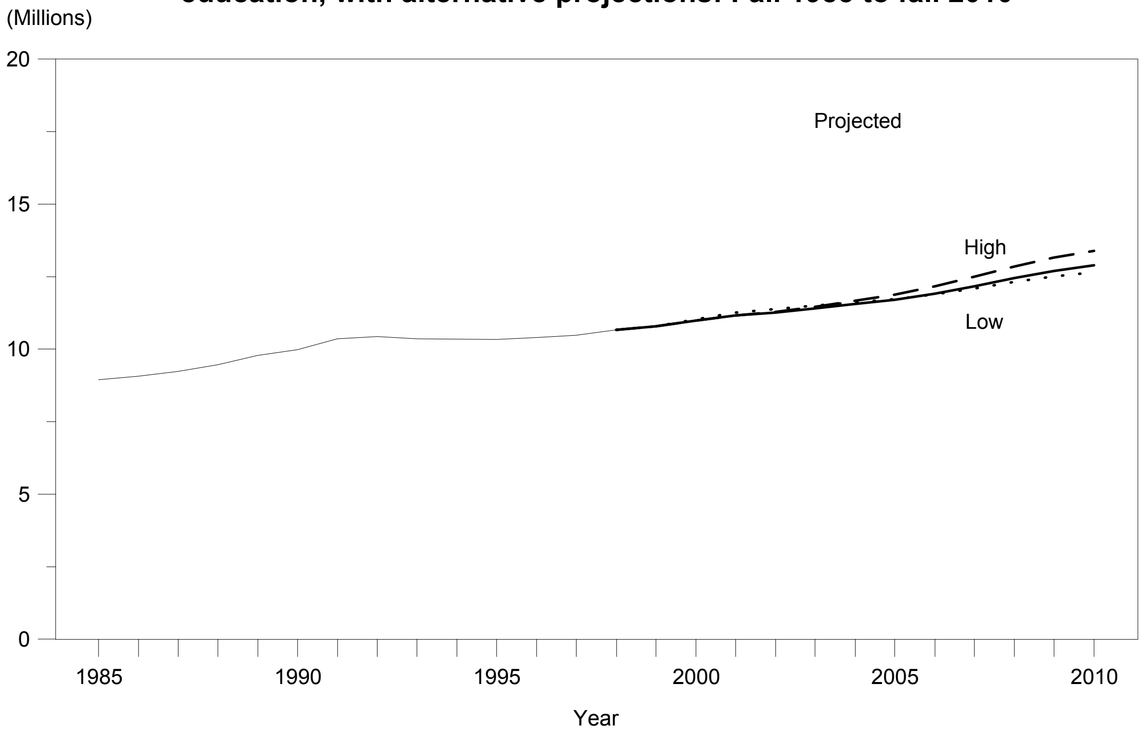
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 28.--Average annual rates of change for postbaccalaureate enrollment: Fall 1985 to fall 2010



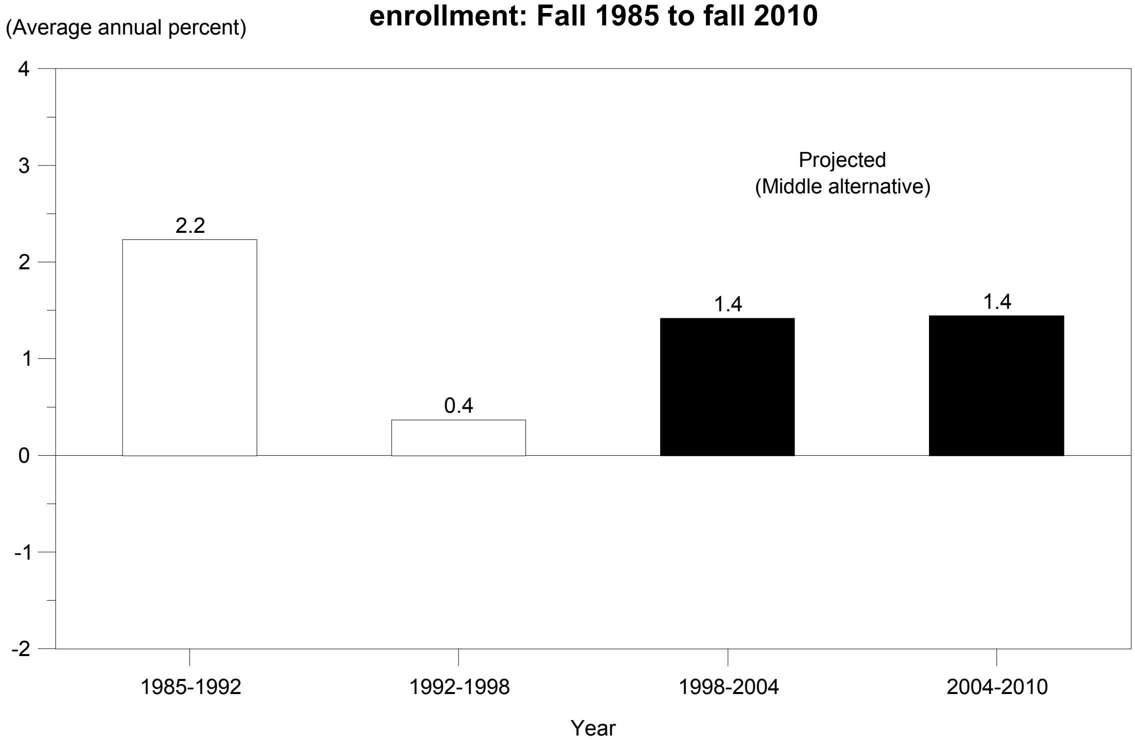
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 29.--Full-time-equivalent enrollment in institutions of higher education, with alternative projections: Fall 1985 to fall 2010



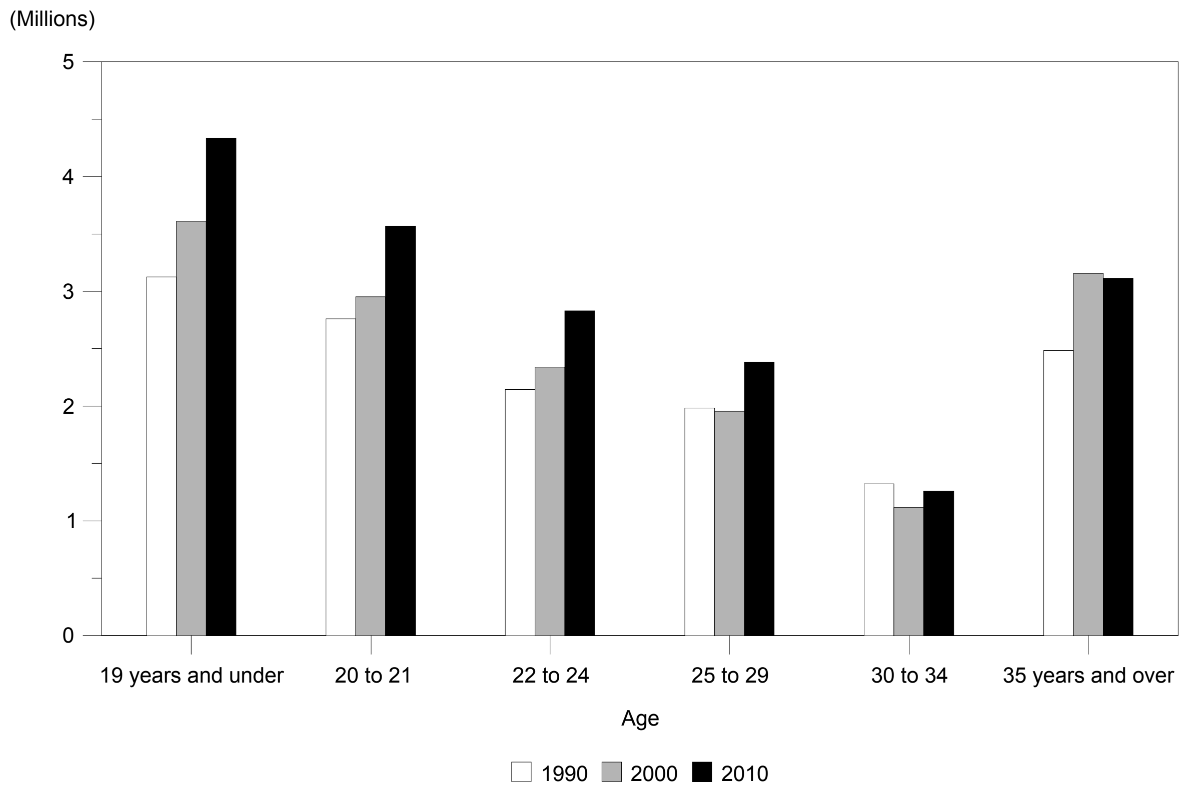
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 30.--Average annual growth rates for full-time-equivalent enrollment: Fall 1985 to fall 2010



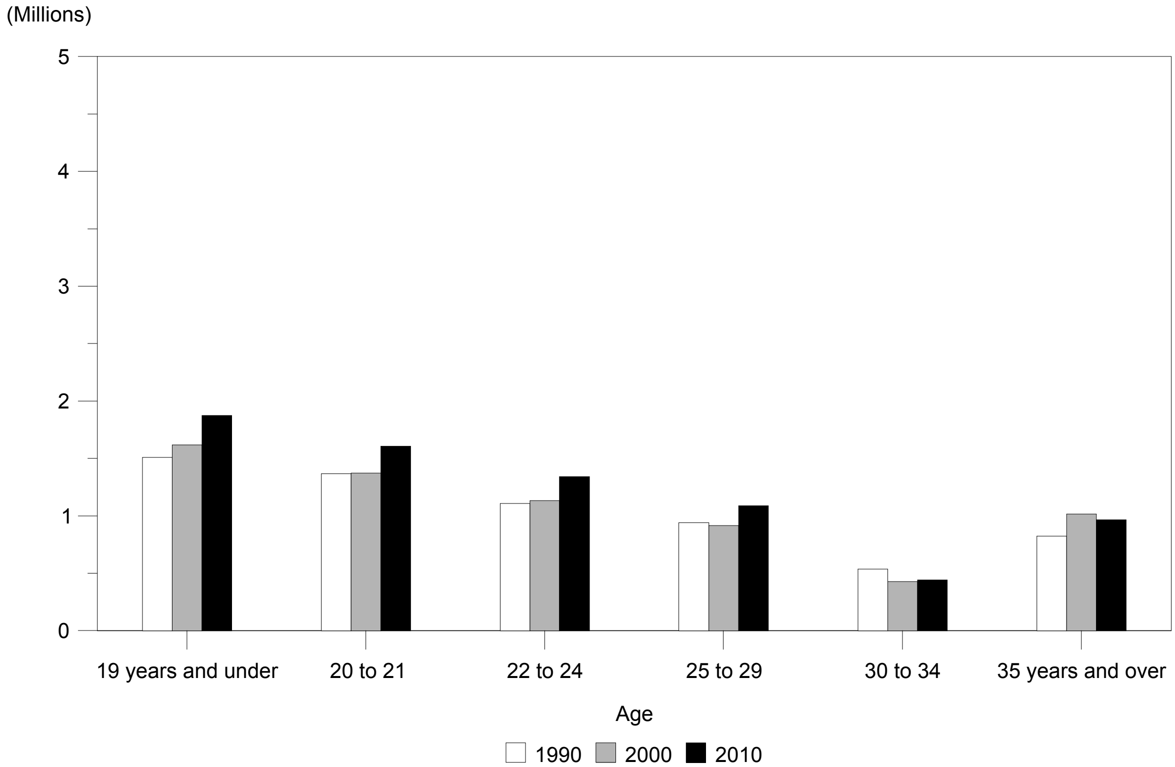
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 31.--Enrollment in institutions of higher education, by age group, with middle alternative projections: Fall 1990, 2000, and 2010



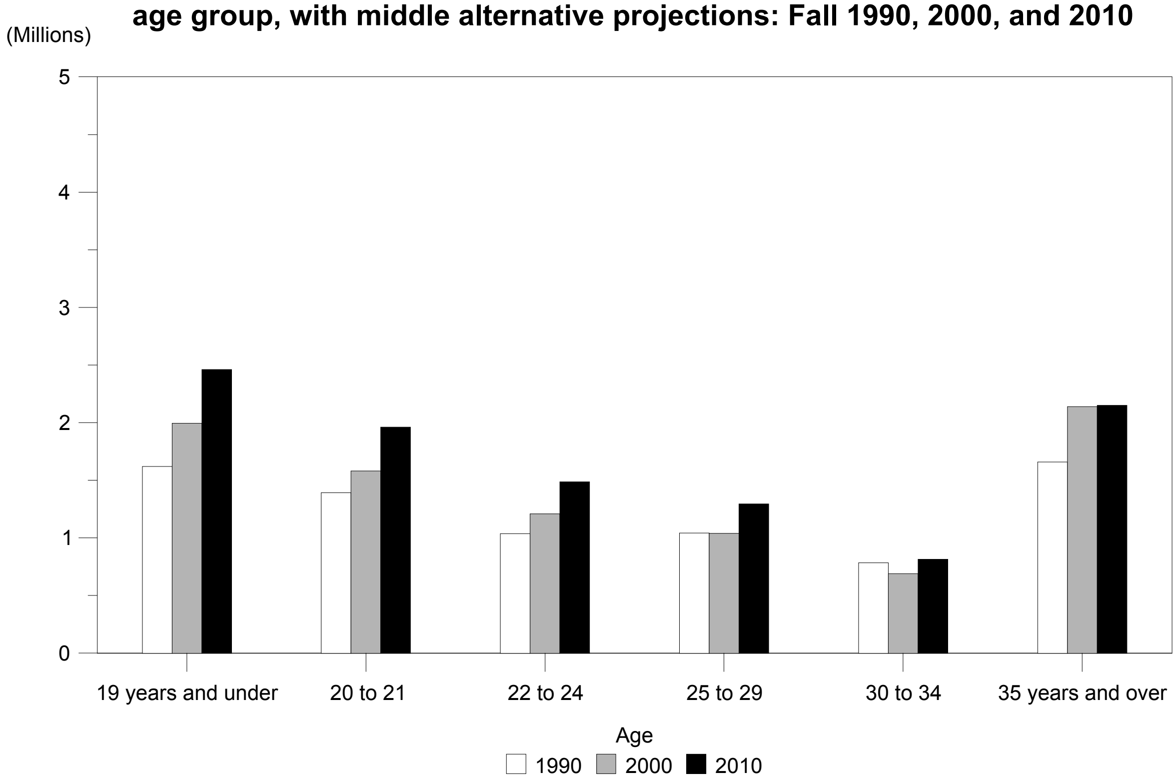
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 32.--Enrollment of men in institutions of higher education, by age group, with middle alternative projections: Fall 1990, 2000, and 2010



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Figure 33.--Enrollment of women in institutions of higher education, by age group, with middle alternative projections: Fall 1990, 2000, and 2010



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model.

Table 10.—Total enrollment in all institutions of higher education, by sex, attendance status, and control of institution, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
1985	12,247	5,818	6,429	7,075	5,172	9,479	2,768
1986	12,505	5,885	6,620	7,120	5,384	9,715	2,790
1987	12,767	5,932	6,835	7,231	5,536	9,973	2,793
1988	13,055	6,002	7,053	7,437	5,618	10,161	2,894
1989	13,539	6,190	7,349	7,661	5,878	10,578	2,961
1990	13,819	6,284	7,535	7,821	5,998	10,845	2,974
1991	14,359	6,502	7,857	8,115	6,244	11,310	3,049
1992	14,486	6,524	7,963	8,161	6,325	11,385	3,102
1993	14,305	6,427	7,877	8,128	6,177	11,189	3,116
1994	14,279	6,372	7,907	8,138	6,141	11,134	3,145
1995	14,262	6,343	7,919	8,129	6,133	11,092	3,169
1996	14,300	6,344	7,956	8,213	6,087	11,090	3,210
1997	14,345	6,330	8,015	8,322	6,023	11,146	3,199
Middle alternative projections							
1998	14,632	6,321	8,311	8,445	6,187	11,388	3,244
1999	14,861	6,392	8,469	8,500	6,360	11,579	3,282
2000	15,135	6,481	8,655	8,665	6,470	11,795	3,340
2001	15,361	6,565	8,796	8,811	6,550	11,972	3,389
2002	15,500	6,614	8,886	8,888	6,613	12,080	3,420
2003	15,683	6,681	9,001	9,008	6,675	12,221	3,462
2004	15,874	6,749	9,125	9,130	6,745	12,370	3,505
2005	16,073	6,814	9,259	9,252	6,821	12,523	3,550
2006	16,336	6,900	9,437	9,432	6,904	12,726	3,610
2007	16,643	7,004	9,639	9,655	6,988	12,962	3,682
2008	16,975	7,126	9,849	9,912	7,063	13,216	3,759
2009	17,261	7,235	10,025	10,140	7,121	13,434	3,827
2010	17,490	7,320	10,169	10,313	7,176	13,607	3,882
Low alternative projections							
1998	14,632	6,321	8,311	8,445	6,187	11,388	3,244
1999	14,861	6,392	8,469	8,501	6,360	11,579	3,282
2000	15,170	6,495	8,675	8,704	6,466	11,819	3,351
2001	15,445	6,600	8,845	8,911	6,534	12,030	3,415
2002	15,591	6,659	8,931	9,018	6,572	12,140	3,451
2003	15,729	6,721	9,009	9,128	6,601	12,245	3,484
2004	15,861	6,776	9,085	9,223	6,638	12,347	3,515
2005	16,009	6,830	9,179	9,322	6,688	12,460	3,549
2006	16,216	6,902	9,314	9,470	6,747	12,619	3,597
2007	16,456	6,989	9,467	9,646	6,810	12,804	3,652
2008	16,716	7,090	9,626	9,847	6,868	13,004	3,712
2009	16,936	7,180	9,756	10,023	6,913	13,173	3,763
2010	17,109	7,248	9,861	10,152	6,958	13,305	3,804
High alternative projections							
1998	14,632	6,321	8,311	8,445	6,187	11,388	3,244
1999	14,861	6,392	8,469	8,500	6,360	11,579	3,282
2000	15,134	6,479	8,655	8,662	6,472	11,794	3,340
2001	15,367	6,563	8,805	8,806	6,561	11,978	3,390
2002	15,536	6,617	8,919	8,894	6,642	12,109	3,427
2003	15,775	6,696	9,079	9,042	6,733	12,295	3,480
2004	16,045	6,781	9,264	9,207	6,838	12,504	3,541
2005	16,334	6,867	9,467	9,382	6,952	12,728	3,606
2006	16,697	6,978	9,719	9,627	7,069	13,007	3,690
2007	17,099	7,107	9,992	9,914	7,185	13,315	3,784
2008	17,518	7,251	10,267	10,231	7,287	13,635	3,882
2009	17,873	7,377	10,495	10,506	7,366	13,906	3,966
2010	18,158	7,477	10,681	10,718	7,439	14,123	4,035

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 11.—Total enrollment in 4–year institutions of higher education, by sex, attendance status, and control of institution, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
1985	7,716	3,816	3,900	5,385	2,331	5,210	2,506
1986	7,825	3,824	4,001	5,424	2,401	5,301	2,524
1987	7,990	3,859	4,131	5,522	2,468	5,432	2,558
1988	8,180	3,912	4,268	5,693	2,487	5,546	2,634
1989	8,388	3,973	4,414	5,805	2,582	5,694	2,693
1990	8,579	4,051	4,527	5,937	2,642	5,848	2,730
1991	8,707	4,100	4,607	6,041	2,666	5,905	2,802
1992	8,764	4,110	4,654	6,081	2,683	5,900	2,864
1993	8,739	4,082	4,657	6,084	2,655	5,852	2,887
1994	8,749	4,049	4,700	6,106	2,643	5,825	2,924
1995	8,769	4,014	4,755	6,152	2,617	5,815	2,955
1996	8,803	3,996	4,807	6,227	2,576	5,807	2,996
1997	8,875	3,994	4,880	6,327	2,548	5,835	3,040
Middle alternative projections							
1998	9,006	3,981	5,026	6,367	2,639	5,965	3,042
1999	9,118	4,013	5,105	6,399	2,719	6,041	3,076
2000	9,288	4,069	5,220	6,521	2,768	6,157	3,131
2001	9,430	4,121	5,309	6,630	2,800	6,253	3,177
2002	9,519	4,153	5,366	6,692	2,827	6,313	3,206
2003	9,637	4,195	5,441	6,784	2,853	6,392	3,245
2004	9,756	4,236	5,520	6,873	2,882	6,471	3,285
2005	9,880	4,275	5,606	6,966	2,915	6,554	3,327
2006	10,050	4,328	5,722	7,102	2,948	6,667	3,384
2007	10,249	4,394	5,855	7,266	2,983	6,799	3,450
2008	10,466	4,471	5,995	7,455	3,011	6,944	3,523
2009	10,657	4,542	6,114	7,625	3,031	7,071	3,586
2010	10,814	4,601	6,213	7,762	3,052	7,176	3,638
Low alternative projections							
1998	9,006	3,981	5,026	6,367	2,639	5,965	3,042
1999	9,118	4,013	5,105	6,400	2,719	6,042	3,077
2000	9,316	4,080	5,236	6,550	2,766	6,176	3,141
2001	9,500	4,151	5,349	6,706	2,794	6,299	3,201
2002	9,602	4,193	5,409	6,791	2,811	6,367	3,235
2003	9,698	4,235	5,463	6,876	2,822	6,432	3,266
2004	9,782	4,270	5,512	6,945	2,837	6,488	3,295
2005	9,878	4,304	5,574	7,020	2,858	6,551	3,326
2006	10,013	4,350	5,663	7,132	2,881	6,641	3,371
2007	10,167	4,404	5,763	7,261	2,906	6,744	3,423
2008	10,335	4,467	5,868	7,408	2,927	6,857	3,478
2009	10,480	4,525	5,955	7,540	2,941	6,955	3,526
2010	10,599	4,573	6,026	7,642	2,957	7,034	3,565
High alternative projections							
1998	9,006	3,981	5,026	6,367	2,639	5,965	3,042
1999	9,118	4,012	5,105	6,399	2,719	6,041	3,076
2000	9,287	4,067	5,219	6,518	2,769	6,156	3,130
2001	9,431	4,118	5,313	6,626	2,805	6,254	3,177
2002	9,537	4,151	5,385	6,696	2,840	6,325	3,212
2003	9,687	4,199	5,488	6,809	2,878	6,425	3,262
2004	9,854	4,249	5,605	6,931	2,923	6,536	3,319
2005	10,036	4,300	5,736	7,064	2,972	6,656	3,380
2006	10,269	4,368	5,901	7,248	3,022	6,811	3,458
2007	10,530	4,449	6,081	7,461	3,070	6,984	3,546
2008	10,804	4,540	6,264	7,694	3,110	7,166	3,638
2009	11,040	4,622	6,418	7,900	3,140	7,324	3,717
2010	11,235	4,690	6,545	8,066	3,169	7,453	3,782

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 12.—Total enrollment in 2–year institutions of higher education, by sex, attendance status, and control of institution, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Sex		Attendance status		Control	
		Men	Women	Full-time	Part-time	Public	Private
1985	4,531	2,002	2,529	1,691	2,840	4,270	261
1986	4,680	2,061	2,619	1,696	2,984	4,414	266
1987	4,776	2,073	2,703	1,709	3,068	4,541	235
1988	4,875	2,090	2,785	1,744	3,132	4,615	260
1989	5,151	2,217	2,934	1,856	3,295	4,884	267
1990	5,240	2,233	3,007	1,884	3,356	4,996	244
1991	5,652	2,402	3,250	2,075	3,577	5,405	247
1992	5,722	2,413	3,309	2,080	3,642	5,485	238
1993	5,566	2,345	3,220	2,043	3,523	5,337	229
1994	5,530	2,323	3,207	2,032	3,498	5,308	221
1995	5,493	2,329	3,164	1,977	3,515	5,278	215
1996	5,497	2,348	3,149	1,987	3,511	5,283	214
1997	5,471	2,336	3,135	1,996	3,475	5,312	159
Middle alternative projections							
1998	5,625	2,341	3,285	2,078	3,547	5,423	202
1999	5,743	2,379	3,364	2,102	3,641	5,537	206
2000	5,847	2,412	3,435	2,145	3,702	5,638	209
2001	5,931	2,444	3,487	2,181	3,750	5,718	213
2002	5,981	2,461	3,520	2,196	3,785	5,767	214
2003	6,046	2,486	3,560	2,223	3,822	5,829	217
2004	6,119	2,514	3,605	2,256	3,862	5,899	220
2005	6,192	2,539	3,653	2,286	3,907	5,970	223
2006	6,286	2,571	3,715	2,331	3,955	6,060	226
2007	6,394	2,611	3,783	2,389	4,006	6,163	231
2008	6,509	2,655	3,854	2,457	4,052	6,272	237
2009	6,604	2,693	3,911	2,514	4,090	6,363	241
2010	6,675	2,719	3,956	2,551	4,124	6,431	244
Low alternative projections							
1998	5,625	2,341	3,285	2,078	3,547	5,423	202
1999	5,743	2,379	3,364	2,102	3,641	5,538	206
2000	5,854	2,414	3,439	2,154	3,699	5,644	210
2001	5,945	2,450	3,496	2,205	3,740	5,731	214
2002	5,988	2,466	3,522	2,227	3,761	5,772	216
2003	6,031	2,485	3,546	2,252	3,779	5,813	218
2004	6,079	2,506	3,573	2,278	3,801	5,859	220
2005	6,131	2,526	3,605	2,301	3,830	5,909	222
2006	6,203	2,552	3,651	2,338	3,865	5,978	225
2007	6,289	2,585	3,704	2,385	3,904	6,060	229
2008	6,381	2,622	3,758	2,439	3,942	6,147	234
2009	6,455	2,654	3,801	2,483	3,972	6,218	237
2010	6,510	2,675	3,835	2,509	4,001	6,271	239
High alternative projections							
1998	5,625	2,341	3,285	2,078	3,547	5,423	202
1999	5,743	2,379	3,364	2,101	3,642	5,537	206
2000	5,848	2,412	3,436	2,144	3,704	5,638	209
2001	5,936	2,445	3,491	2,180	3,756	5,724	213
2002	6,000	2,466	3,534	2,198	3,802	5,785	215
2003	6,087	2,496	3,591	2,232	3,855	5,869	218
2004	6,191	2,532	3,659	2,276	3,915	5,969	222
2005	6,298	2,567	3,731	2,319	3,980	6,072	226
2006	6,427	2,609	3,818	2,380	4,048	6,196	231
2007	6,569	2,658	3,911	2,454	4,115	6,331	238
2008	6,713	2,711	4,003	2,537	4,177	6,469	244
2009	6,832	2,755	4,077	2,606	4,226	6,582	250
2010	6,923	2,787	4,136	2,652	4,271	6,669	254

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 13A.—Enrollment in all institutions of higher education, by age, sex, and attendance status: Fall 1985 to fall 1997

(In thousands)

Sex, age, and attendance status	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997
Men and women, total	**12,247**	**12,505**	**12,767**	**13,055**	**13,539**	**13,819**	**14,359**	**14,486**	**14,305**	**14,279**	**14,262**	**14,300**	**14,345**
14 to 17 years old	246	206	264	179	185	177	125	186	127	138	148	229	168
18 to 19 years old	2,753	2,914	3,012	2,940	3,041	2,950	2,864	2,784	2,840	2,787	2,894	3,004	3,014
20 to 21 years old	2,505	2,304	2,651	2,667	2,550	2,761	2,920	2,883	2,674	2,724	2,705	2,643	2,843
22 to 24 years old	1,920	2,051	1,979	2,068	2,185	2,144	2,306	2,527	2,570	2,482	2,411	2,316	2,453
25 to 29 years old	1,866	1,893	1,745	1,740	1,979	1,982	2,072	1,985	2,002	1,985	2,120	2,124	1,981
30 to 34 years old	1,185	1,219	1,223	1,283	1,305	1,322	1,415	1,456	1,345	1,414	1,236	1,194	1,098
35 years old and over	1,773	1,918	1,892	2,179	2,293	2,484	2,656	2,665	2,747	2,750	2,747	2,790	2,790
Men, total	**5,818**	**5,885**	**5,932**	**6,002**	**6,190**	**6,284**	**6,502**	**6,524**	**6,427**	**6,372**	**6,343**	**6,344**	**6,330**
14 to 17 years old	128	85	127	58	77	87	50	89	54	62	61	92	55
18 to 19 years old	1,331	1,428	1,427	1,343	1,433	1,421	1,299	1,305	1,288	1,302	1,338	1,342	1,392
20 to 21 years old	1,282	1,143	1,318	1,332	1,261	1,368	1,387	1,342	1,284	1,264	1,282	1,224	1,359
22 to 24 years old	1,022	1,067	995	1,130	1,084	1,107	1,232	1,272	1,344	1,238	1,153	1,175	1,190
25 to 29 years old	935	1,001	920	844	993	940	1,049	955	903	936	962	993	964
30 to 34 years old	531	545	520	588	562	537	614	627	584	601	561	480	439
35 years old and over	590	616	625	707	782	824	870	933	970	969	986	1,039	931
Women, total	**6,429**	**6,620**	**6,835**	**7,053**	**7,349**	**7,535**	**7,857**	**7,963**	**7,877**	**7,907**	**7,919**	**7,956**	**8,015**
14 to 17 years old	118	121	136	121	108	90	76	97	73	75	87	137	113
18 to 19 years old	1,422	1,486	1,585	1,596	1,608	1,529	1,565	1,479	1,552	1,485	1,557	1,662	1,622
20 to 21 years old	1,223	1,161	1,333	1,336	1,290	1,392	1,533	1,541	1,391	1,461	1,424	1,419	1,484
22 to 24 years old	898	983	984	937	1,101	1,037	1,074	1,255	1,226	1,243	1,258	1,141	1,263
25 to 29 years old	931	892	825	896	986	1,043	1,022	1,030	1,098	1,049	1,159	1,131	1,017
30 to 34 years old	653	673	703	695	743	784	800	828	761	812	675	714	659
35 years old and over	1,183	1,302	1,268	1,472	1,511	1,659	1,786	1,732	1,777	1,781	1,760	1,752	1,859
Full-time	**7,075**	**7,120**	**7,231**	**7,437**	**7,661**	**7,821**	**8,115**	**8,161**	**8,128**	**8,138**	**8,129**	**8,213**	**8,322**
14 to 17 years old	205	187	146	150	154	144	117	179	92	118	123	164	120
18 to 19 years old	2,394	2,524	2,568	2,528	2,671	2,548	2,466	2,382	2,370	2,321	2,387	2,516	2,492
20 to 21 years old	1,993	1,844	2,060	2,108	2,064	2,151	2,342	2,267	2,148	2,178	2,109	2,098	2,248
22 to 24 years old	1,191	1,264	1,185	1,243	1,300	1,350	1,467	1,594	1,612	1,551	1,517	1,586	1,590
25 to 29 years old	660	658	650	670	667	770	830	731	839	869	908	902	886
30 to 34 years old	298	310	278	350	332	387	382	409	424	440	430	379	371
35 years old and over	335	333	344	389	474	471	513	598	643	660	653	568	616
Full-time men	**3,608**	**3,599**	**3,611**	**3,662**	**3,740**	**3,808**	**3,929**	**3,926**	**3,891**	**3,855**	**3,807**	**3,816**	**3,839**
14 to 17 years old	103	81	70	51	60	71	41	86	37	51	54	71	46
18 to 19 years old	1,169	1,250	1,228	1,171	1,289	1,230	1,141	1,130	1,079	1,081	1,091	1,111	1,134
20 to 21 years old	1,037	938	1,039	1,032	1,017	1,055	1,103	1,084	1,003	1,029	999	961	1,061
22 to 24 years old	701	691	649	723	696	742	817	854	896	811	789	853	762
25 to 29 years old	366	381	353	383	366	401	465	378	443	457	454	440	470
30 to 34 years old	140	150	139	158	151	156	174	174	180	193	183	143	158
35 years old and over	91	109	132	145	162	152	187	220	253	232	238	237	207
Full-time women	**3,468**	**3,521**	**3,620**	**3,775**	**3,921**	**4,013**	**4,186**	**4,235**	**4,237**	**4,283**	**4,321**	**4,398**	**4,483**
14 to 17 years old	102	107	76	99	93	73	76	93	55	67	69	93	74
18 to 19 years old	1,225	1,275	1,341	1,357	1,383	1,318	1,325	1,253	1,291	1,240	1,296	1,405	1,358
20 to 21 years old	956	906	1,021	1,076	1,047	1,096	1,239	1,183	1,145	1,149	1,111	1,137	1,187
22 to 24 years old	489	573	536	520	604	608	650	739	716	740	729	734	828
25 to 29 years old	294	277	296	287	301	369	364	353	396	412	455	462	416
30 to 34 years old	158	160	139	192	182	231	208	235	244	247	247	236	213
35 years old and over	244	223	211	244	311	319	325	377	390	428	415	331	409
Part-time	**5,172**	**5,384**	**5,536**	**5,618**	**5,878**	**5,998**	**6,244**	**6,325**	**6,177**	**6,141**	**6,133**	**6,087**	**6,023**
14 to 17 years old	41	19	117	29	32	32	9	7	35	19	25	65	47
18 to 19 years old	359	390	444	412	370	402	399	402	470	466	507	488	522
20 to 21 years old	511	460	591	559	487	610	578	616	526	546	596	544	595
22 to 24 years old	729	787	794	825	885	794	840	933	958	930	894	729	863
25 to 29 years old	1,207	1,235	1,096	1,070	1,312	1,213	1,242	1,254	1,163	1,116	1,212	1,222	1,095
30 to 34 years old	887	909	945	933	973	935	1,033	1,046	921	973	805	815	727
35 years old and over	1,438	1,586	1,549	1,790	1,819	2,012	2,143	2,068	2,104	2,091	2,093	2,222	2,174
Part-time men	**2,211**	**2,286**	**2,321**	**2,340**	**2,450**	**2,476**	**2,572**	**2,597**	**2,537**	**2,517**	**2,535**	**2,528**	**2,491**
14 to 17 years old	25	5	57	7	17	16	9	4	17	11	7	21	9
18 to 19 years old	161	178	199	172	144	191	158	176	210	220	246	231	258
20 to 21 years old	244	205	279	300	244	313	285	258	281	235	283	263	298
22 to 24 years old	320	377	346	408	388	365	415	417	448	427	365	323	427
25 to 29 years old	569	620	567	461	627	539	584	577	460	479	508	553	494
30 to 34 years old	392	395	381	431	411	381	440	453	404	408	378	337	281
35 years old and over	499	507	492	561	619	672	682	713	717	737	748	801	724
Part-time women	**2,961**	**3,099**	**3,214**	**3,278**	**3,428**	**3,521**	**3,671**	**3,728**	**3,640**	**3,624**	**3,598**	**3,558**	**3,532**
14 to 17 years old	16	14	61	22	15	17	0	3	18	8	18	45	39
18 to 19 years old	198	212	244	240	226	211	241	226	261	245	261	257	264
20 to 21 years old	267	255	312	260	243	297	294	358	245	311	313	282	297
22 to 24 years old	409	410	448	417	497	429	425	516	510	504	529	407	436
25 to 29 years old	638	615	528	609	685	674	658	677	702	637	704	669	601
30 to 34 years old	495	514	564	503	562	554	593	593	517	565	427	478	446
35 years old and over	939	1,079	1,056	1,229	1,200	1,340	1,461	1,355	1,386	1,354	1,345	1,421	1,450

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 13B.—Projected enrollment in all institutions of higher education, by age, sex, and attendance status: Fall 1998 to fall 2010

(In thousands)

Sex, age, and attendance status	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
Men and women, total	**14,632**	**14,861**	**15,135**	**15,361**	**15,500**	**15,683**	**15,874**	**16,073**	**16,336**	**16,643**	**16,975**	**17,261**	**17,490**
14 to 17 years old	189	202	204	206	213	218	222	230	240	253	259	260	258
18 to 19 years old	3,253	3,336	3,409	3,473	3,464	3,503	3,588	3,629	3,695	3,801	3,947	4,058	4,077
20 to 21 years old	2,793	2,829	2,954	3,037	3,084	3,135	3,126	3,171	3,253	3,301	3,362	3,446	3,569
22 to 24 years old	2,323	2,324	2,341	2,397	2,473	2,532	2,596	2,631	2,651	2,701	2,744	2,791	2,831
25 to 29 years old	2,000	1,980	1,956	1,922	1,928	1,961	2,017	2,086	2,167	2,242	2,311	2,352	2,383
30 to 34 years old	1,111	1,107	1,117	1,139	1,148	1,151	1,147	1,142	1,134	1,153	1,182	1,218	1,258
35 years old and over	2,963	3,083	3,155	3,188	3,189	3,181	3,179	3,184	3,197	3,193	3,170	3,136	3,115
Men, total	**6,321**	**6,392**	**6,481**	**6,565**	**6,614**	**6,681**	**6,749**	**6,814**	**6,900**	**7,004**	**7,126**	**7,235**	**7,320**
14 to 17 years old	85	98	98	99	101	103	103	106	109	114	115	115	113
18 to 19 years old	1,452	1,495	1,519	1,544	1,537	1,549	1,582	1,595	1,616	1,655	1,713	1,758	1,761
20 to 21 years old	1,311	1,319	1,373	1,408	1,426	1,446	1,438	1,453	1,484	1,499	1,521	1,555	1,607
22 to 24 years old	1,116	1,120	1,132	1,161	1,199	1,227	1,256	1,269	1,273	1,292	1,308	1,327	1,342
25 to 29 years old	949	930	915	898	900	915	939	969	1,002	1,033	1,061	1,077	1,089
30 to 34 years old	436	429	428	431	430	427	421	415	409	412	420	430	443
35 years old and over	973	1,000	1,017	1,024	1,021	1,015	1,010	1,007	1,006	999	988	974	965
Women, total	**8,311**	**8,469**	**8,655**	**8,796**	**8,886**	**9,001**	**9,125**	**9,259**	**9,437**	**9,639**	**9,849**	**10,025**	**10,169**
14 to 17 years old	103	104	106	107	112	115	119	124	131	139	144	145	145
18 to 19 years old	1,801	1,840	1,890	1,929	1,928	1,954	2,006	2,035	2,079	2,146	2,234	2,300	2,316
20 to 21 years old	1,482	1,509	1,581	1,629	1,658	1,689	1,688	1,718	1,769	1,802	1,842	1,891	1,962
22 to 24 years old	1,207	1,204	1,209	1,236	1,274	1,305	1,340	1,362	1,378	1,409	1,436	1,465	1,488
25 to 29 years old	1,051	1,050	1,041	1,023	1,028	1,047	1,078	1,118	1,165	1,209	1,250	1,275	1,294
30 to 34 years old	675	678	689	708	718	724	726	726	725	740	762	787	815
35 years old and over	1,991	2,083	2,138	2,165	2,169	2,167	2,168	2,176	2,191	2,193	2,182	2,162	2,150
Full-time	**8,445**	**8,500**	**8,665**	**8,811**	**8,888**	**9,008**	**9,130**	**9,252**	**9,432**	**9,655**	**9,912**	**10,140**	**10,313**
14 to 17 years old	149	161	167	168	176	180	184	190	199	210	216	217	216
18 to 19 years old	2,756	2,832	2,907	2,968	2,964	3,000	3,074	3,111	3,170	3,264	3,393	3,491	3,510
20 to 21 years old	2,214	2,249	2,356	2,426	2,466	2,508	2,501	2,538	2,606	2,648	2,701	2,771	2,872
22 to 24 years old	1,515	1,495	1,493	1,519	1,559	1,591	1,627	1,646	1,658	1,691	1,722	1,753	1,780
25 to 29 years old	835	793	769	748	745	755	773	798	830	861	891	910	924
30 to 34 years old	386	382	384	390	391	390	387	384	381	387	398	410	425
35 years old and over	592	587	590	591	587	584	582	583	588	592	592	589	588
Full-time men	**3,836**	**3,861**	**3,917**	**3,972**	**3,998**	**4,040**	**4,080**	**4,114**	**4,167**	**4,238**	**4,328**	**4,412**	**4,474**
14 to 17 years old	68	75	78	78	81	82	82	84	86	90	91	91	90
18 to 19 years old	1,210	1,255	1,281	1,306	1,301	1,312	1,340	1,350	1,368	1,401	1,451	1,488	1,491
20 to 21 years old	1,027	1,036	1,081	1,110	1,125	1,141	1,133	1,144	1,168	1,180	1,196	1,223	1,265
22 to 24 years old	736	733	736	752	774	790	806	813	814	825	835	847	857
25 to 29 years old	437	411	395	381	377	380	387	397	409	420	432	438	443
30 to 34 years old	161	159	159	161	161	159	157	154	152	153	156	160	165
35 years old and over	198	191	187	184	180	176	174	172	170	169	167	164	163
Full-time women	**4,609**	**4,640**	**4,748**	**4,839**	**4,890**	**4,968**	**5,050**	**5,138**	**5,265**	**5,417**	**5,584**	**5,728**	**5,840**
14 to 17 years old	81	86	89	90	96	99	102	107	112	120	124	126	126
18 to 19 years old	1,546	1,577	1,626	1,662	1,663	1,688	1,734	1,761	1,802	1,863	1,942	2,003	2,018
20 to 21 years old	1,187	1,213	1,275	1,316	1,341	1,367	1,368	1,394	1,438	1,469	1,505	1,547	1,607
22 to 24 years old	778	763	757	767	785	801	821	833	844	866	886	906	923
25 to 29 years old	397	382	374	367	368	375	386	402	421	441	459	471	481
30 to 34 years old	225	223	225	229	230	231	230	229	229	234	242	250	260
35 years old and over	394	396	403	407	407	407	409	412	418	423	425	425	425
Part-time	**6,187**	**6,360**	**6,470**	**6,550**	**6,613**	**6,675**	**6,745**	**6,821**	**6,904**	**6,988**	**7,063**	**7,121**	**7,176**
14 to 17 years old	40	40	36	37	37	38	38	40	41	43	43	43	42
18 to 19 years old	497	503	502	505	500	503	513	518	525	537	554	567	568
20 to 21 years old	579	580	598	610	618	627	624	632	646	653	661	675	697
22 to 24 years old	809	829	848	878	914	941	969	985	993	1,009	1,023	1,038	1,051
25 to 29 years old	1,165	1,186	1,186	1,173	1,183	1,207	1,243	1,288	1,337	1,381	1,420	1,443	1,459
30 to 34 years old	725	726	733	749	757	761	760	758	754	765	784	807	833
35 years old and over	2,372	2,496	2,565	2,598	2,603	2,598	2,597	2,601	2,609	2,601	2,579	2,547	2,527
Part-time men	**2,485**	**2,531**	**2,563**	**2,592**	**2,616**	**2,642**	**2,670**	**2,700**	**2,732**	**2,766**	**2,798**	**2,824**	**2,847**
14 to 17 years old	18	22	19	21	21	21	21	22	23	24	24	24	23
18 to 19 years old	242	240	238	239	236	237	242	244	248	254	263	269	270
20 to 21 years old	285	283	292	297	301	305	304	309	316	320	324	331	342
22 to 24 years old	380	388	396	409	425	437	449	456	459	467	473	480	485
25 to 29 years old	511	519	520	517	523	535	552	572	593	613	629	639	646
30 to 34 years old	275	270	269	270	270	268	264	261	257	259	264	271	278
35 years old and over	775	809	830	840	841	838	837	836	836	831	821	810	802
Part-time women	**3,702**	**3,829**	**3,906**	**3,958**	**3,997**	**4,033**	**4,075**	**4,121**	**4,172**	**4,222**	**4,265**	**4,298**	**4,330**
14 to 17 years old	22	18	17	16	17	17	17	17	18	19	19	19	19
18 to 19 years old	255	263	264	267	265	266	272	274	277	283	291	298	298
20 to 21 years old	295	297	307	313	317	321	320	324	330	333	337	344	354
22 to 24 years old	429	441	452	469	489	504	520	529	533	542	550	559	566
25 to 29 years old	654	668	666	656	660	672	691	716	743	768	790	804	813
30 to 34 years old	450	455	465	479	488	493	496	497	496	506	520	537	555
35 years old and over	1,597	1,686	1,735	1,758	1,762	1,759	1,760	1,765	1,773	1,770	1,757	1,738	1,725

NOTE: Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 14.—Enrollment in all institutions of higher education, by age, sex, and attendance status, with low alternative projections: Fall 1990, 1995, 1998, 2005, and 2010

(In thousands)

Sex, age, and attendance status	1990	1995	1998*	2005*	2010*
Men and women, total	**13,819**	**14,262**	**14,632**	**16,009**	**17,109**
14 to 17 years old	177	148	189	229	250
18 to 19 years old	2,950	2,894	3,253	3,628	4,015
20 to 21 years old	2,761	2,705	2,793	3,175	3,513
22 to 24 years old	2,144	2,411	2,323	2,626	2,771
25 to 29 years old	1,982	2,120	2,000	2,076	2,323
30 to 34 years old	1,322	1,236	1,111	1,133	1,221
35 years old and over	2,484	2,747	2,963	3,142	3,016
Men, total	**6,284**	**6,343**	**6,321**	**6,830**	**7,248**
14 to 17 years old	87	61	85	106	112
18 to 19 years old	1,421	1,338	1,452	1,602	1,752
20 to 21 years old	1,368	1,282	1,311	1,463	1,600
22 to 24 years old	1,107	1,153	1,116	1,275	1,331
25 to 29 years old	940	962	949	970	1,074
30 to 34 years old	537	561	436	415	436
35 years old and over	824	986	973	999	944
Women, total	**7,535**	**7,919**	**8,311**	**9,179**	**9,861**
14 to 17 years old	90	87	103	123	138
18 to 19 years old	1,529	1,557	1,801	2,026	2,264
20 to 21 years old	1,392	1,424	1,482	1,712	1,913
22 to 24 years old	1,037	1,258	1,207	1,352	1,440
25 to 29 years old	1,043	1,159	1,051	1,106	1,248
30 to 34 years old	784	675	675	718	785
35 years old and over	1,659	1,760	1,991	2,143	2,072
Full-time	**7,821**	**8,129**	**8,445**	**9,322**	**10,152**
14 to 17 years old	144	123	149	190	209
18 to 19 years old	2,548	2,387	2,756	3,120	3,460
20 to 21 years old	2,151	2,109	2,214	2,556	2,833
22 to 24 years old	1,350	1,517	1,515	1,660	1,750
25 to 29 years old	770	908	835	813	911
30 to 34 years old	387	430	386	390	416
35 years old and over	471	653	592	592	574
Full-time men	**3,808**	**3,807**	**3,836**	**4,176**	**4,478**
14 to 17 years old	71	54	68	84	89
18 to 19 years old	1,230	1,091	1,210	1,363	1,489
20 to 21 years old	1,055	999	1,027	1,160	1,266
22 to 24 years old	742	789	736	826	858
25 to 29 years old	401	454	437	407	446
30 to 34 years old	156	183	161	158	166
35 years old and over	152	238	198	176	164
Full-time women	**4,013**	**4,321**	**4,609**	**5,146**	**5,674**
14 to 17 years old	73	69	81	105	120
18 to 19 years old	1,318	1,296	1,546	1,758	1,971
20 to 21 years old	1,096	1,111	1,187	1,395	1,566
22 to 24 years old	608	729	778	834	891
25 to 29 years old	369	455	397	406	465
30 to 34 years old	231	247	225	231	251
35 years old and over	319	415	394	416	410
Part-time	**5,998**	**6,133**	**6,187**	**6,688**	**6,958**
14 to 17 years old	32	25	40	39	41
18 to 19 years old	402	507	497	508	556
20 to 21 years old	610	596	579	619	680
22 to 24 years old	794	894	809	966	1,021
25 to 29 years old	1,213	1,212	1,165	1,263	1,412
30 to 34 years old	935	805	725	743	805
35 years old and over	2,012	2,093	2,372	2,549	2,442
Part-time men	**2,476**	**2,535**	**2,485**	**2,654**	**2,770**
14 to 17 years old	16	7	18	22	23
18 to 19 years old	191	246	242	239	263
20 to 21 years old	313	283	285	302	333
22 to 24 years old	365	365	380	448	472
25 to 29 years old	539	508	511	563	628
30 to 34 years old	381	378	275	257	270
35 years old and over	672	748	775	823	780
Part-time women	**3,521**	**3,598**	**3,702**	**4,033**	**4,187**
14 to 17 years old	17	18	22	17	18
18 to 19 years old	211	261	255	269	293
20 to 21 years old	297	313	295	317	347
22 to 24 years old	429	529	429	518	549
25 to 29 years old	674	704	654	700	784
30 to 34 years old	554	427	450	486	535
35 years old and over	1,340	1,345	1,597	1,727	1,662

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. * Projected.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 15.—Enrollment in all institutions of higher education, by age, sex, and attendance status, with high alternative projections: Fall 1990, 1995, 1998, 2005, and 2010

(In thousands)

Sex, age, and attendance status	1990	1995	1998*	2005*	2010*
Men and women, total	**13,819**	**14,262**	**14,632**	**16,334**	**18,158**
14 to 17 years old	177	148	189	235	271
18 to 19 years old	2,950	2,894	3,253	3,671	4,193
20 to 21 years old	2,761	2,705	2,793	3,211	3,683
22 to 24 years old	2,144	2,411	2,323	2,674	2,943
25 to 29 years old	1,982	2,120	2,000	2,124	2,487
30 to 34 years old	1,322	1,236	1,111	1,166	1,319
35 years old and over	2,484	2,747	2,963	3,252	3,262
Men, total	**6,284**	**6,343**	**6,321**	**6,867**	**7,477**
14 to 17 years old	87	61	85	107	116
18 to 19 years old	1,421	1,338	1,452	1,601	1,787
20 to 21 years old	1,368	1,282	1,311	1,460	1,633
22 to 24 years old	1,107	1,153	1,116	1,278	1,371
25 to 29 years old	940	962	949	979	1,118
30 to 34 years old	537	561	436	420	456
35 years old and over	824	986	973	1,022	996
Women, total	**7,535**	**7,919**	**8,311**	**9,467**	**10,681**
14 to 17 years old	90	87	103	128	156
18 to 19 years old	1,529	1,557	1,801	2,070	2,406
20 to 21 years old	1,392	1,424	1,482	1,752	2,050
22 to 24 years old	1,037	1,258	1,207	1,396	1,572
25 to 29 years old	1,043	1,159	1,051	1,146	1,368
30 to 34 years old	784	675	675	745	864
35 years old and over	1,659	1,760	1,991	2,230	2,266
Full-time	**7,821**	**8,129**	**8,445**	**9,382**	**10,718**
14 to 17 years old	144	123	149	195	227
18 to 19 years old	2,548	2,387	2,756	3,147	3,615
20 to 21 years old	2,151	2,109	2,214	2,571	2,971
22 to 24 years old	1,350	1,517	1,515	1,672	1,858
25 to 29 years old	770	908	835	811	970
30 to 34 years old	387	430	386	391	450
35 years old and over	471	653	592	596	626
Full-time men	**3,808**	**3,807**	**3,836**	**4,122**	**4,537**
14 to 17 years old	71	54	68	84	92
18 to 19 years old	1,230	1,091	1,210	1,353	1,509
20 to 21 years old	1,055	999	1,027	1,146	1,281
22 to 24 years old	742	789	736	815	871
25 to 29 years old	401	454	437	397	451
30 to 34 years old	156	183	161	155	168
35 years old and over	152	238	198	172	166
Full-time women	**4,013**	**4,321**	**4,609**	**5,261**	**6,181**
14 to 17 years old	73	69	81	110	136
18 to 19 years old	1,318	1,296	1,546	1,794	2,106
20 to 21 years old	1,096	1,111	1,187	1,425	1,690
22 to 24 years old	608	729	778	857	988
25 to 29 years old	369	455	397	414	520
30 to 34 years old	231	247	225	236	282
35 years old and over	319	415	394	424	460
Part-time	**5,998**	**6,133**	**6,187**	**6,952**	**7,439**
14 to 17 years old	32	25	40	40	44
18 to 19 years old	402	507	497	524	577
20 to 21 years old	610	596	579	641	712
22 to 24 years old	794	894	809	1,002	1,084
25 to 29 years old	1,213	1,212	1,165	1,314	1,517
30 to 34 years old	935	805	725	775	870
35 years old and over	2,012	2,093	2,372	2,656	2,636
Part-time men	**2,476**	**2,535**	**2,485**	**2,745**	**2,940**
14 to 17 years old	16	7	18	22	24
18 to 19 years old	191	246	242	248	277
20 to 21 years old	313	283	285	313	352
22 to 24 years old	365	365	380	464	500
25 to 29 years old	539	508	511	582	668
30 to 34 years old	381	378	275	266	288
35 years old and over	672	748	775	851	831
Part-time women	**3,521**	**3,598**	**3,702**	**4,206**	**4,500**
14 to 17 years old	17	18	22	18	20
18 to 19 years old	211	261	255	276	300
20 to 21 years old	297	313	295	327	360
22 to 24 years old	429	529	429	538	584
25 to 29 years old	674	704	654	732	849
30 to 34 years old	554	427	450	509	582
35 years old and over	1,340	1,345	1,597	1,806	1,805

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding. * Projected.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 16.—Total enrollment in all institutions of higher education, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	12,247	3,608	2,211	3,468	2,961
1986	12,505	3,599	2,286	3,521	3,099
1987	12,767	3,611	2,321	3,620	3,214
1988	13,055	3,662	2,340	3,775	3,278
1989	13,539	3,740	2,450	3,921	3,428
1990	13,819	3,808	2,476	4,013	3,521
1991	14,359	3,929	2,572	4,186	3,671
1992	14,486	3,926	2,597	4,235	3,728
1993	14,305	3,891	2,537	4,237	3,640
1994	14,279	3,855	2,517	4,283	3,624
1995	14,262	3,807	2,535	4,321	3,598
1996	14,300	3,816	2,528	4,398	3,558
1997	14,345	3,839	2,491	4,483	3,532
		Middle alternative projections			
1998	14,632	3,836	2,485	4,609	3,702
1999	14,861	3,861	2,531	4,640	3,829
2000	15,135	3,917	2,563	4,748	3,906
2001	15,361	3,972	2,592	4,839	3,958
2002	15,500	3,998	2,616	4,890	3,997
2003	15,683	4,040	2,642	4,968	4,033
2004	15,874	4,080	2,670	5,050	4,075
2005	16,073	4,114	2,700	5,138	4,121
2006	16,336	4,167	2,732	5,265	4,172
2007	16,643	4,238	2,766	5,417	4,222
2008	16,975	4,328	2,798	5,584	4,265
2009	17,261	4,412	2,824	5,728	4,298
2010	17,490	4,474	2,847	5,840	4,330
		Low alternative projections			
1998	14,632	3,836	2,485	4,609	3,702
1999	14,861	3,861	2,531	4,640	3,829
2000	15,170	3,933	2,562	4,771	3,904
2001	15,445	4,013	2,587	4,898	3,947
2002	15,591	4,057	2,602	4,961	3,970
2003	15,729	4,104	2,616	5,024	3,984
2004	15,861	4,143	2,633	5,080	4,005
2005	16,009	4,176	2,654	5,146	4,033
2006	16,216	4,224	2,678	5,246	4,069
2007	16,456	4,284	2,705	5,362	4,105
2008	16,716	4,359	2,731	5,488	4,138
2009	16,936	4,428	2,751	5,595	4,162
2010	17,109	4,478	2,770	5,674	4,187
		High alternative projections			
1998	14,632	3,836	2,485	4,609	3,702
1999	14,861	3,861	2,531	4,640	3,829
2000	15,134	3,915	2,564	4,747	3,908
2001	15,367	3,966	2,596	4,840	3,965
2002	15,536	3,990	2,626	4,904	4,016
2003	15,775	4,034	2,662	5,008	4,071
2004	16,045	4,079	2,702	5,128	4,136
2005	16,334	4,122	2,745	5,261	4,206
2006	16,697	4,188	2,790	5,440	4,279
2007	17,099	4,272	2,835	5,642	4,350
2008	17,518	4,374	2,877	5,857	4,410
2009	17,873	4,467	2,910	6,039	4,456
2010	18,158	4,537	2,940	6,181	4,500

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 17.—Total enrollment in public 4–year institutions of higher education, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	5,210	1,864	693	1,760	893
1986	5,301	1,865	706	1,793	937
1987	5,432	1,882	723	1,854	973
1988	5,546	1,910	722	1,932	982
1989	5,694	1,938	743	1,997	1,017
1990	5,848	1,982	764	2,051	1,050
1991	5,905	2,006	765	2,083	1,051
1992	5,900	2,005	760	2,090	1,045
1993	5,852	1,989	750	2,085	1,027
1994	5,825	1,966	738	2,100	1,022
1995	5,815	1,951	720	2,134	1,009
1996	5,807	1,943	704	2,163	997
1997	5,835	1,951	687	2,213	983
		Middle alternative projections			
1998	5,965	1,948	698	2,272	1,046
1999	6,041	1,958	712	2,287	1,084
2000	6,157	1,987	722	2,342	1,107
2001	6,253	2,016	729	2,387	1,121
2002	6,313	2,031	736	2,414	1,132
2003	6,392	2,053	743	2,454	1,142
2004	6,471	2,072	751	2,494	1,154
2005	6,554	2,090	759	2,537	1,167
2006	6,667	2,117	768	2,601	1,181
2007	6,799	2,152	777	2,675	1,195
2008	6,944	2,196	785	2,757	1,206
2009	7,071	2,238	791	2,828	1,214
2010	7,176	2,272	797	2,886	1,222
		Low alternative projections			
1998	5,965	1,948	698	2,272	1,046
1999	6,042	1,958	712	2,287	1,084
2000	6,176	1,995	721	2,353	1,106
2001	6,299	2,037	728	2,416	1,118
2002	6,367	2,061	732	2,449	1,125
2003	6,432	2,086	736	2,481	1,129
2004	6,488	2,105	741	2,508	1,134
2005	6,551	2,122	746	2,541	1,142
2006	6,641	2,146	753	2,591	1,152
2007	6,744	2,176	760	2,648	1,161
2008	6,857	2,212	766	2,710	1,169
2009	6,955	2,247	770	2,763	1,174
2010	7,034	2,274	775	2,804	1,180
		High alternative projections			
1998	5,965	1,948	698	2,272	1,046
1999	6,041	1,958	712	2,287	1,084
2000	6,156	1,986	722	2,341	1,107
2001	6,254	2,013	730	2,388	1,123
2002	6,325	2,027	739	2,421	1,138
2003	6,425	2,050	748	2,474	1,153
2004	6,536	2,072	760	2,532	1,172
2005	6,656	2,094	772	2,598	1,192
2006	6,811	2,128	784	2,686	1,213
2007	6,984	2,169	796	2,786	1,233
2008	7,166	2,220	807	2,891	1,249
2009	7,324	2,267	815	2,981	1,261
2010	7,453	2,304	823	3,054	1,272

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 18.—Total enrollment in public 2–year institutions of higher education, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	4,270	743	1,138	754	1,635
1986	4,414	742	1,193	764	1,715
1987	4,541	744	1,225	787	1,785
1988	4,615	746	1,231	822	1,817
1989	4,884	793	1,302	881	1,907
1990	4,996	811	1,318	906	1,962
1991	5,405	882	1,414	1,004	2,105
1992	5,485	878	1,431	1,037	2,138
1993	5,337	859	1,386	1,030	2,063
1994	5,308	848	1,379	1,038	2,044
1995	5,278	819	1,417	1,022	2,020
1996	5,283	825	1,416	1,033	2,009
1997	5,312	832	1,431	1,039	2,010
Middle alternative projections					
1998	5,423	848	1,401	1,090	2,084
1999	5,537	861	1,426	1,099	2,151
2000	5,638	875	1,443	1,125	2,194
2001	5,718	888	1,461	1,146	2,223
2002	5,767	891	1,474	1,156	2,245
2003	5,829	900	1,489	1,174	2,266
2004	5,899	910	1,505	1,194	2,289
2005	5,970	918	1,523	1,214	2,315
2006	6,060	930	1,542	1,244	2,345
2007	6,163	947	1,562	1,280	2,374
2008	6,272	970	1,582	1,321	2,400
2009	6,363	989	1,598	1,355	2,420
2010	6,431	1,000	1,612	1,379	2,440
Low alternative projections					
1998	5,423	848	1,401	1,090	2,084
1999	5,538	861	1,426	1,099	2,151
2000	5,644	878	1,442	1,131	2,192
2001	5,731	896	1,458	1,161	2,217
2002	5,772	903	1,466	1,173	2,229
2003	5,813	913	1,475	1,187	2,238
2004	5,859	923	1,484	1,201	2,250
2005	5,909	930	1,497	1,216	2,266
2006	5,978	941	1,511	1,239	2,287
2007	6,060	956	1,527	1,268	2,309
2008	6,147	976	1,543	1,299	2,329
2009	6,218	992	1,557	1,324	2,345
2010	6,271	1,000	1,569	1,340	2,362
High alternative projections					
1998	5,423	848	1,401	1,090	2,084
1999	5,537	860	1,426	1,099	2,152
2000	5,638	874	1,444	1,125	2,195
2001	5,724	886	1,463	1,147	2,227
2002	5,785	890	1,480	1,160	2,256
2003	5,869	899	1,501	1,183	2,287
2004	5,969	910	1,524	1,212	2,323
2005	6,072	919	1,548	1,243	2,362
2006	6,196	934	1,574	1,285	2,403
2007	6,331	955	1,600	1,334	2,443
2008	6,469	980	1,625	1,386	2,478
2009	6,582	1,002	1,646	1,428	2,506
2010	6,669	1,014	1,664	1,459	2,532

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 19.—Total enrollment in private 4–year institutions of higher education, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	2,506	918	342	844	403
1986	2,524	910	343	856	414
1987	2,558	909	346	878	426
1988	2,634	933	347	918	436
1989	2,693	933	360	938	463
1990	2,730	944	361	959	466
1991	2,802	962	367	990	483
1992	2,864	970	375	1,016	503
1993	2,887	973	369	1,037	508
1994	2,924	978	367	1,063	516
1995	2,955	978	364	1,089	523
1996	2,996	991	358	1,130	517
1997	3,040	999	357	1,163	520
		Middle alternative projections			
1998	3,042	979	355	1,168	540
1999	3,076	980	363	1,173	560
2000	3,131	992	368	1,200	572
2001	3,177	1,005	371	1,222	579
2002	3,206	1,012	374	1,235	585
2003	3,245	1,022	378	1,255	590
2004	3,285	1,031	382	1,276	596
2005	3,327	1,040	386	1,298	603
2006	3,384	1,053	390	1,331	610
2007	3,450	1,071	394	1,369	617
2008	3,523	1,092	398	1,410	622
2009	3,586	1,113	401	1,446	626
2010	3,638	1,129	403	1,475	630
		Low alternative projections			
1998	3,042	979	355	1,168	540
1999	3,077	980	363	1,174	560
2000	3,141	996	367	1,205	571
2001	3,201	1,016	371	1,237	578
2002	3,235	1,027	373	1,254	581
2003	3,266	1,039	374	1,270	583
2004	3,295	1,048	376	1,284	586
2005	3,326	1,057	379	1,301	590
2006	3,371	1,069	382	1,326	595
2007	3,423	1,083	385	1,355	600
2008	3,478	1,101	388	1,386	603
2009	3,526	1,117	390	1,412	606
2010	3,565	1,131	392	1,433	609
		High alternative projections			
1998	3,042	979	355	1,168	540
1999	3,076	980	363	1,173	560
2000	3,130	992	368	1,199	572
2001	3,177	1,003	372	1,222	580
2002	3,212	1,010	376	1,239	588
2003	3,262	1,020	381	1,266	596
2004	3,319	1,031	386	1,296	605
2005	3,380	1,042	392	1,330	616
2006	3,458	1,059	398	1,375	626
2007	3,546	1,079	404	1,426	636
2008	3,638	1,104	409	1,480	645
2009	3,717	1,127	413	1,526	651
2010	3,782	1,145	417	1,563	657

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 20.—Total enrollment in private 2–year institutions of higher education, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	261	84	38	110	30
1986	266	83	43	108	32
1987	235	76	28	102	29
1988	260	73	40	103	44
1989	267	76	45	105	41
1990	244	71	34	96	43
1991	247	80	27	109	32
1992	238	74	30	91	43
1993	229	70	31	85	43
1994	221	64	33	82	43
1995	215	60	33	77	45
1996	214	57	51	72	35
1997	159	57	16	67	18
		Middle alternative projections			
1998	202	61	30	79	32
1999	206	62	31	80	33
2000	209	63	31	82	34
2001	213	64	31	83	34
2002	214	64	32	84	35
2003	217	65	32	85	35
2004	220	66	32	87	35
2005	223	66	33	88	36
2006	226	67	33	90	36
2007	231	68	33	93	37
2008	237	70	34	96	37
2009	241	71	34	98	37
2010	244	72	34	100	38
		Low alternative projections			
1998	202	61	30	79	32
1999	206	62	31	80	33
2000	210	63	31	82	34
2001	214	65	31	84	34
2002	216	65	31	85	34
2003	218	66	32	86	35
2004	220	67	32	87	35
2005	222	67	32	88	35
2006	225	68	32	90	35
2007	229	69	33	92	36
2008	234	70	33	94	36
2009	237	72	33	96	36
2010	239	72	34	97	37
		High alternative projections			
1998	202	61	30	79	32
1999	206	62	31	80	33
2000	209	63	31	82	34
2001	213	64	31	83	34
2002	215	64	32	84	35
2003	218	65	32	86	35
2004	222	66	33	88	36
2005	226	66	33	90	37
2006	231	67	34	93	37
2007	238	69	34	97	38
2008	244	71	35	100	38
2009	250	72	35	104	39
2010	254	73	36	106	39

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 21.—Undergraduate enrollment in all institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	10,597	3,156	1,806	3,163	2,471
1986	10,799	3,147	1,871	3,206	2,575
1987	11,046	3,164	1,905	3,299	2,679
1988	11,317	3,206	1,931	3,436	2,743
1989	11,743	3,279	2,032	3,562	2,869
1990	11,959	3,337	2,043	3,639	2,940
1991	12,439	3,436	2,135	3,786	3,082
1992	12,537	3,424	2,158	3,819	3,135
1993	12,324	3,382	2,102	3,797	3,043
1994	12,263	3,342	2,081	3,827	3,013
1995	12,232	3,297	2,105	3,849	2,982
1996	12,259	3,304	2,107	3,907	2,942
1997	12,298	3,330	2,075	3,976	2,917
Middle alternative projections					
1998	12,604	3,355	2,069	4,129	3,050
1999	12,818	3,394	2,105	4,168	3,151
2000	13,079	3,457	2,131	4,277	3,215
2001	13,294	3,514	2,157	4,365	3,258
2002	13,419	3,539	2,178	4,411	3,291
2003	13,584	3,578	2,201	4,483	3,323
2004	13,753	3,613	2,225	4,556	3,358
2005	13,927	3,644	2,251	4,635	3,396
2006	14,162	3,694	2,279	4,751	3,438
2007	14,435	3,757	2,309	4,888	3,481
2008	14,738	3,839	2,338	5,042	3,519
2009	15,002	3,916	2,362	5,175	3,549
2010	15,209	3,972	2,383	5,277	3,578
Low alternative projections					
1998	12,604	3,355	2,069	4,129	3,050
1999	12,818	3,394	2,105	4,168	3,151
2000	13,109	3,470	2,130	4,297	3,212
2001	13,365	3,548	2,152	4,416	3,249
2002	13,495	3,588	2,166	4,472	3,269
2003	13,623	3,631	2,179	4,530	3,282
2004	13,742	3,666	2,194	4,581	3,300
2005	13,872	3,696	2,213	4,640	3,324
2006	14,060	3,740	2,234	4,732	3,354
2007	14,276	3,794	2,258	4,838	3,386
2008	14,517	3,864	2,282	4,956	3,415
2009	14,725	3,929	2,302	5,056	3,438
2010	14,885	3,974	2,320	5,130	3,462
High alternative projections					
1998	12,604	3,355	2,069	4,129	3,050
1999	12,818	3,394	2,105	4,168	3,152
2000	13,078	3,455	2,132	4,276	3,216
2001	13,299	3,509	2,160	4,366	3,264
2002	13,449	3,532	2,186	4,424	3,307
2003	13,662	3,573	2,218	4,518	3,354
2004	13,898	3,613	2,252	4,625	3,407
2005	14,148	3,651	2,289	4,743	3,465
2006	14,468	3,712	2,327	4,904	3,525
2007	14,822	3,787	2,366	5,086	3,584
2008	15,198	3,879	2,403	5,280	3,635
2009	15,521	3,965	2,434	5,447	3,676
2010	15,776	4,027	2,460	5,575	3,714

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 22.—Undergraduate enrollment in public institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	8,477	2,356	1,596	2,331	2,193
1986	8,661	2,351	1,652	2,367	2,291
1987	8,919	2,375	1,701	2,449	2,393
1988	9,103	2,399	1,714	2,550	2,439
1989	9,488	2,470	1,801	2,663	2,553
1990	9,710	2,527	1,826	2,734	2,623
1991	10,148	2,610	1,921	2,851	2,766
1992	10,216	2,602	1,935	2,883	2,797
1993	10,012	2,566	1,882	2,860	2,704
1994	9,945	2,532	1,863	2,875	2,676
1995	9,904	2,491	1,889	2,885	2,638
1996	9,905	2,491	1,877	2,920	2,618
1997	9,958	2,507	1,878	2,969	2,605
Middle alternative projections					
1998	10,199	2,534	1,859	3,090	2,716
1999	10,379	2,564	1,891	3,119	2,805
2000	10,587	2,611	1,915	3,200	2,861
2001	10,757	2,654	1,938	3,265	2,900
2002	10,856	2,672	1,957	3,299	2,929
2003	10,987	2,701	1,977	3,352	2,957
2004	11,123	2,728	1,999	3,408	2,988
2005	11,262	2,751	2,022	3,466	3,022
2006	11,449	2,789	2,047	3,553	3,060
2007	11,664	2,837	2,074	3,655	3,098
2008	11,902	2,899	2,100	3,771	3,132
2009	12,108	2,958	2,122	3,870	3,158
2010	12,269	2,999	2,141	3,945	3,184
Low alternative projections					
1998	10,199	2,534	1,859	3,090	2,716
1999	10,380	2,564	1,891	3,119	2,805
2000	10,608	2,621	1,914	3,215	2,859
2001	10,809	2,680	1,934	3,303	2,892
2002	10,909	2,709	1,946	3,345	2,909
2003	11,008	2,741	1,958	3,388	2,921
2004	11,102	2,768	1,971	3,426	2,937
2005	11,206	2,790	1,988	3,470	2,958
2006	11,353	2,824	2,007	3,539	2,985
2007	11,524	2,865	2,028	3,618	3,013
2008	11,713	2,918	2,050	3,707	3,039
2009	11,876	2,967	2,067	3,781	3,060
2010	12,000	3,000	2,084	3,835	3,081
High alternative projections					
1998	10,199	2,534	1,859	3,090	2,716
1999	10,379	2,564	1,891	3,119	2,805
2000	10,587	2,609	1,916	3,199	2,863
2001	10,762	2,650	1,941	3,266	2,905
2002	10,883	2,667	1,964	3,308	2,943
2003	11,053	2,697	1,992	3,379	2,984
2004	11,242	2,728	2,023	3,459	3,032
2005	11,443	2,757	2,056	3,547	3,083
2006	11,697	2,802	2,090	3,668	3,137
2007	11,977	2,859	2,125	3,804	3,189
2008	12,273	2,930	2,158	3,950	3,235
2009	12,525	2,994	2,186	4,074	3,271
2010	12,724	3,040	2,210	4,169	3,305

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 23.—Undergraduate enrollment in private institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	2,120	800	210	832	278
1986	2,137	796	219	839	284
1987	2,128	788	204	849	286
1988	2,213	807	217	886	304
1989	2,255	808	231	899	316
1990	2,250	810	217	905	317
1991	2,291	825	215	935	316
1992	2,320	823	223	936	338
1993	2,312	816	220	937	338
1994	2,317	810	218	952	338
1995	2,328	806	216	963	344
1996	2,354	813	230	987	324
1997	2,340	823	198	1,007	312
		Middle alternative projections			
1998	2,405	821	210	1,039	335
1999	2,438	830	213	1,049	346
2000	2,492	846	216	1,077	353
2001	2,537	860	219	1,100	358
2002	2,562	867	221	1,112	362
2003	2,597	877	224	1,130	366
2004	2,630	885	226	1,149	370
2005	2,665	893	229	1,169	374
2006	2,714	905	232	1,198	379
2007	2,771	920	235	1,233	383
2008	2,836	940	238	1,271	387
2009	2,894	959	240	1,305	391
2010	2,941	973	242	1,331	394
		Low alternative projections			
1998	2,405	821	210	1,039	335
1999	2,439	830	213	1,049	346
2000	2,500	849	216	1,082	353
2001	2,557	869	218	1,112	357
2002	2,586	879	220	1,127	360
2003	2,615	890	221	1,142	361
2004	2,640	898	223	1,155	363
2005	2,667	905	225	1,170	366
2006	2,706	916	227	1,193	369
2007	2,752	929	230	1,220	373
2008	2,803	946	232	1,250	376
2009	2,849	962	234	1,275	378
2010	2,885	974	236	1,295	381
		High alternative projections			
1998	2,405	821	210	1,039	335
1999	2,438	830	213	1,049	346
2000	2,492	845	216	1,077	353
2001	2,537	859	219	1,100	359
2002	2,566	865	222	1,115	364
2003	2,610	876	225	1,139	369
2004	2,656	885	229	1,166	375
2005	2,705	894	233	1,196	382
2006	2,771	909	237	1,237	388
2007	2,845	927	241	1,282	395
2008	2,925	950	244	1,331	400
2009	2,996	970	248	1,373	405
2010	3,052	987	250	1,406	409

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 24.—Graduate enrollment in all institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	1,376	289	388	220	479
1986	1,435	294	399	228	514
1987	1,452	294	400	233	525
1988	1,472	304	393	249	526
1989	1,522	309	401	263	548
1990	1,586	321	416	278	571
1991	1,639	341	419	300	578
1992	1,669	351	421	314	582
1993	1,688	355	416	334	584
1994	1,721	359	417	347	598
1995	1,732	356	412	361	603
1996	1,743	358	403	378	604
1997	1,751	359	398	392	603
Middle alternative projections					
1998	1,741	337	398	368	638
1999	1,760	327	408	362	664
2000	1,775	322	413	362	678
2001	1,786	321	416	364	685
2002	1,799	321	419	367	691
2003	1,813	323	422	372	696
2004	1,832	326	425	379	702
2005	1,853	329	429	386	710
2006	1,877	331	433	394	718
2007	1,905	337	437	406	726
2008	1,929	342	440	416	731
2009	1,946	347	442	424	733
2010	1,963	351	443	432	737
Low alternative projections					
1998	1,741	337	398	368	638
1999	1,760	327	408	362	664
2000	1,779	324	413	364	677
2001	1,795	325	416	370	684
2002	1,808	328	418	375	687
2003	1,816	331	418	379	688
2004	1,827	334	420	383	690
2005	1,841	336	422	388	695
2006	1,858	338	425	394	700
2007	1,877	342	428	402	705
2008	1,892	346	430	408	708
2009	1,901	349	430	413	709
2010	1,912	352	431	417	710
High alternative projections					
1998	1,741	337	398	368	638
1999	1,760	327	408	362	664
2000	1,775	322	413	361	678
2001	1,787	320	417	363	686
2002	1,804	320	421	368	694
2003	1,826	322	425	376	703
2004	1,856	326	431	386	714
2005	1,889	329	437	397	726
2006	1,925	333	443	411	739
2007	1,966	340	449	427	750
2008	2,000	346	453	442	759
2009	2,026	352	456	454	764
2010	2,050	357	459	465	770

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 25.—Graduate enrollment in public institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	890	182	232	144	333
1986	941	188	244	150	358
1987	945	185	244	152	364
1988	949	193	236	163	357
1989	978	195	242	171	369
1990	1,023	203	253	180	388
1991	1,050	215	255	192	388
1992	1,058	221	253	200	384
1993	1,064	221	252	207	383
1994	1,075	220	251	214	388
1995	1,074	218	246	221	388
1996	1,068	216	240	226	386
1997	1,070	215	237	231	386
Middle alternative projections					
1998	1,076	204	238	222	411
1999	1,089	198	244	218	428
2000	1,098	196	247	218	437
2001	1,105	195	249	219	442
2002	1,113	195	251	222	445
2003	1,122	196	252	225	449
2004	1,134	198	254	229	453
2005	1,147	200	257	233	458
2006	1,161	201	259	238	463
2007	1,178	204	261	245	468
2008	1,193	208	263	251	471
2009	1,203	210	264	256	473
2010	1,214	213	265	261	475
Low alternative projections					
1998	1,076	204	238	222	411
1999	1,089	198	244	218	428
2000	1,100	197	247	220	437
2001	1,110	198	249	223	441
2002	1,118	199	250	226	443
2003	1,123	201	250	229	443
2004	1,130	203	251	231	445
2005	1,139	204	252	234	448
2006	1,149	206	254	238	451
2007	1,161	208	256	242	454
2008	1,170	210	257	246	456
2009	1,175	212	257	249	457
2010	1,182	214	258	252	458
High alternative projections					
1998	1,076	204	238	222	411
1999	1,089	198	244	218	428
2000	1,098	196	247	218	437
2001	1,106	194	249	219	442
2002	1,116	195	252	222	448
2003	1,130	196	254	227	453
2004	1,148	198	257	233	460
2005	1,168	200	261	239	468
2006	1,191	202	265	248	476
2007	1,216	206	268	258	484
2008	1,237	210	271	267	489
2009	1,253	214	273	274	493
2010	1,268	217	274	281	496

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 26.—Graduate enrollment in private institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	486	107	156	76	147
1986	494	106	155	78	156
1987	507	108	156	82	161
1988	522	111	157	86	168
1989	544	114	159	92	179
1990	563	118	163	98	184
1991	589	126	164	109	190
1992	611	130	168	114	198
1993	625	133	164	126	201
1994	647	138	166	133	210
1995	659	138	166	140	215
1996	675	142	163	152	218
1997	681	144	161	160	216
Middle alternative projections					
1998	665	132	160	146	227
1999	672	128	164	144	236
2000	677	127	166	143	241
2001	681	126	167	144	243
2002	686	126	169	146	245
2003	691	127	170	148	247
2004	699	128	171	150	250
2005	707	129	173	153	252
2006	716	130	174	156	255
2007	727	132	176	161	258
2008	736	134	177	165	260
2009	743	136	178	168	261
2010	749	138	178	171	262
Low alternative projections					
1998	665	132	160	146	227
1999	672	128	164	144	236
2000	678	127	166	144	241
2001	685	128	167	147	243
2002	690	129	168	149	244
2003	693	130	168	150	244
2004	697	131	169	152	245
2005	702	132	170	154	247
2006	709	133	171	156	249
2007	716	134	172	159	250
2008	722	136	173	162	252
2009	726	137	173	164	252
2010	730	138	173	166	252
High alternative projections					
1998	665	132	160	146	227
1999	672	128	164	144	236
2000	677	126	166	143	241
2001	681	126	168	144	244
2002	688	126	169	146	247
2003	696	127	171	149	250
2004	708	128	173	153	254
2005	720	129	176	157	258
2006	734	131	178	163	263
2007	750	133	180	169	267
2008	763	136	182	175	270
2009	773	138	183	180	272
2010	782	140	184	184	273

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 27.—First-professional enrollment in all institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	274	162	17	84	10
1986	270	159	15	87	9
1987	268	154	16	88	10
1988	267	151	16	90	10
1989	274	153	16	95	10
1990	273	150	17	96	11
1991	281	152	18	100	11
1992	281	151	18	101	11
1993	292	154	19	106	14
1994	295	155	19	108	12
1995	298	155	19	111	12
1996	298	154	18	113	12
1997	297	151	18	115	13
Middle alternative projections					
1998	288	145	18	112	13
1999	283	140	18	110	14
2000	281	138	19	110	14
2001	281	138	19	110	14
2002	283	138	19	111	14
2003	285	139	19	113	14
2004	289	140	19	115	15
2005	292	141	19	117	15
2006	297	142	20	120	15
2007	303	145	20	123	15
2008	308	147	20	126	15
2009	313	149	20	129	15
2010	317	151	20	131	15
Low alternative projections					
1998	288	145	18	112	13
1999	283	140	18	110	14
2000	283	139	19	111	14
2001	285	140	19	112	14
2002	288	141	19	114	14
2003	290	142	19	115	14
2004	293	143	19	116	14
2005	296	144	19	118	14
2006	299	145	19	120	15
2007	303	147	19	122	15
2008	307	149	19	124	15
2009	310	150	19	125	15
2010	312	151	19	127	15
High alternative projections					
1998	288	145	18	112	13
1999	283	140	18	110	14
2000	281	138	19	110	14
2001	281	137	19	110	14
2002	283	138	19	112	14
2003	286	138	19	114	15
2004	291	140	19	117	15
2005	297	141	20	121	15
2006	303	143	20	125	15
2007	311	146	20	130	16
2008	319	149	20	134	16
2009	326	151	21	138	16
2010	331	153	21	141	16

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 28.—First-professional enrollment in public institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men Full-time	Men Part-time	Women Full-time	Women Part-time
1985	112	68	3	38	2
1986	112	67	3	39	2
1987	110	65	3	40	2
1988	109	64	2	41	2
1989	113	65	2	43	2
1990	112	63	3	44	2
1991	111	62	3	45	2
1992	111	61	3	45	2
1993	114	61	3	47	3
1994	114	61	3	48	2
1995	115	61	3	49	2
1996	116	61	3	50	2
1997	118	61	3	52	2
Middle alternative projections					
1998	113	58	3	50	2
1999	111	56	3	49	3
2000	110	55	3	49	3
2001	110	55	3	49	3
2002	111	55	3	50	3
2003	112	56	3	51	3
2004	113	56	3	51	3
2005	114	56	3	52	3
2006	116	57	3	54	3
2007	119	58	3	55	3
2008	121	59	3	57	3
2009	123	60	3	58	3
2010	125	60	3	59	3
Low alternative projections					
1998	113	58	3	50	2
1999	111	56	3	49	3
2000	111	56	3	49	3
2001	112	56	3	50	3
2002	113	56	3	51	3
2003	114	57	3	51	3
2004	115	57	3	52	3
2005	116	58	3	53	3
2006	117	58	3	54	3
2007	119	59	3	55	3
2008	121	60	3	55	3
2009	122	60	3	56	3
2010	123	61	3	57	3
High alternative projections					
1998	113	58	3	50	2
1999	111	56	3	49	3
2000	110	55	3	49	3
2001	110	55	3	49	3
2002	111	55	3	50	3
2003	112	55	3	51	3
2004	114	56	3	52	3
2005	116	57	3	54	3
2006	119	57	3	56	3
2007	122	58	3	58	3
2008	126	59	3	60	3
2009	128	60	3	62	3
2010	131	61	3	63	3

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 29.—First-professional enrollment in private institutions, by sex and attendance status, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Men		Women	
		Full-time	Part-time	Full-time	Part-time
1985	162	94	14	46	8
1986	158	91	12	48	7
1987	158	88	14	48	8
1988	158	87	14	49	8
1989	162	87	14	52	9
1990	162	86	14	52	8
1991	169	90	15	55	9
1992	170	90	15	56	9
1993	179	93	16	59	11
1994	181	94	16	60	10
1995	183	94	16	62	10
1996	181	93	16	62	10
1997	178	90	15	63	10
Middle alternative projections					
1998	175	87	15	62	11
1999	172	84	16	61	11
2000	171	83	16	61	11
2001	171	83	16	61	12
2002	172	83	16	62	12
2003	174	83	16	62	12
2004	176	84	16	64	12
2005	178	85	17	65	12
2006	180	85	17	66	12
2007	184	87	17	68	12
2008	187	88	17	70	12
2009	190	89	17	71	12
2010	193	90	17	72	12
Low alternative projections					
1998	175	87	15	62	11
1999	172	84	16	61	11
2000	172	83	16	61	11
2001	174	84	16	62	12
2002	175	85	16	63	12
2003	177	85	16	64	12
2004	178	86	16	64	12
2005	180	87	16	65	12
2006	182	87	16	66	12
2007	184	88	16	67	12
2008	186	89	17	69	12
2009	188	90	17	69	12
2010	190	91	17	70	12
High alternative projections					
1998	175	87	15	62	11
1999	172	84	16	61	11
2000	171	83	16	61	11
2001	171	82	16	61	12
2002	172	83	16	62	12
2003	174	83	16	63	12
2004	177	84	17	65	12
2005	181	85	17	67	12
2006	184	86	17	69	13
2007	189	87	17	72	13
2008	194	89	17	74	13
2009	197	91	18	76	13
2010	201	92	18	78	13

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 30.—Full-time-equivalent enrollment in all institutions of higher education, by level of student and type of institution, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Undergraduate		Graduate	First-professional
		4-year	2-year	4-year	4-year
1985	8,943	5,204	2,649	829	261
1986	9,064	5,244	2,703	859	259
1987	9,229	5,363	2,742	868	257
1988	9,466	5,518	2,800	892	256
1989	9,783	5,630	2,967	923	263
1990	9,985	5,746	3,015	963	261
1991	10,363	5,806	3,279	1,010	268
1992	10,438	5,826	3,307	1,036	268
1993	10,353	5,788	3,230	1,057	278
1994	10,349	5,777	3,211	1,081	281
1995	10,337	5,799	3,162	1,092	284
1996	10,402	5,840	3,170	1,108	284
1997	10,485	5,917	3,165	1,120	283
Middle alternative projections					
1998	10,670	6,036	3,273	1,087	274
1999	10,787	6,107	3,328	1,084	268
2000	10,992	6,247	3,392	1,087	266
2001	11,166	6,365	3,444	1,091	266
2002	11,266	6,429	3,471	1,098	268
2003	11,408	6,519	3,511	1,108	270
2004	11,555	6,603	3,557	1,121	274
2005	11,705	6,691	3,602	1,135	277
2006	11,915	6,820	3,663	1,151	281
2007	12,168	6,972	3,738	1,172	287
2008	12,452	7,147	3,822	1,190	293
2009	12,700	7,307	3,892	1,205	297
2010	12,894	7,433	3,940	1,219	301
Low alternative projections					
1998	10,670	6,036	3,273	1,087	274
1999	10,788	6,108	3,328	1,085	268
2000	11,029	6,271	3,400	1,091	268
2001	11,261	6,424	3,465	1,101	270
2002	11,382	6,504	3,494	1,111	273
2003	11,502	6,584	3,525	1,118	275
2004	11,610	6,648	3,558	1,127	278
2005	11,726	6,718	3,591	1,136	281
2006	11,896	6,824	3,640	1,148	284
2007	12,094	6,945	3,699	1,163	288
2008	12,317	7,084	3,766	1,175	292
2009	12,509	7,210	3,821	1,183	294
2010	12,653	7,308	3,857	1,191	297
High alternative projections					
1998	10,670	6,036	3,273	1,087	274
1999	10,787	6,107	3,328	1,084	268
2000	10,989	6,245	3,391	1,086	266
2001	11,166	6,363	3,445	1,091	266
2002	11,283	6,436	3,478	1,101	268
2003	11,463	6,547	3,531	1,115	271
2004	11,666	6,662	3,594	1,134	276
2005	11,882	6,787	3,659	1,155	281
2006	12,170	6,959	3,743	1,180	287
2007	12,498	7,154	3,840	1,209	295
2008	12,851	7,369	3,943	1,236	303
2009	13,155	7,560	4,029	1,256	309
2010	13,393	7,713	4,090	1,275	315

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 31.—Full-time-equivalent enrollment in public institutions of higher education, by level of student and type of institution, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Undergraduate		Graduate	First-professional
		4-year	2-year	4-year	4-year
1985	6,668	3,601	2,428	530	109
1986	6,779	3,630	2,482	556	110
1987	6,938	3,731	2,542	557	108
1988	7,097	3,828	2,591	570	107
1989	7,372	3,921	2,752	588	111
1990	7,558	4,016	2,818	614	110
1991	7,863	4,047	3,067	639	110
1992	7,912	4,038	3,114	651	109
1993	7,812	3,996	3,046	658	111
1994	7,784	3,971	3,035	666	112
1995	7,752	3,976	2,994	668	113
1996	7,775	3,984	3,008	669	114
1997	7,839	4,025	3,026	672	116
		Middle alternative projections			
1998	8,006	4,126	3,108	661	111
1999	8,104	4,175	3,161	660	108
2000	8,261	4,270	3,221	661	108
2001	8,393	4,350	3,271	664	108
2002	8,467	4,394	3,296	668	108
2003	8,573	4,455	3,334	674	109
2004	8,684	4,513	3,378	682	111
2005	8,796	4,573	3,420	691	112
2006	8,953	4,661	3,478	700	114
2007	9,142	4,764	3,549	713	116
2008	9,354	4,884	3,628	724	119
2009	9,539	4,992	3,694	733	121
2010	9,682	5,079	3,739	741	122
		Low alternative projections			
1998	8,006	4,126	3,108	661	111
1999	8,104	4,175	3,161	660	108
2000	8,287	4,286	3,229	664	108
2001	8,461	4,391	3,290	670	109
2002	8,549	4,445	3,318	676	111
2003	8,638	4,500	3,347	680	112
2004	8,720	4,543	3,378	685	113
2005	8,806	4,591	3,409	691	114
2006	8,932	4,664	3,455	698	115
2007	9,081	4,746	3,511	707	117
2008	9,249	4,841	3,575	715	118
2009	9,392	4,927	3,626	720	119
2010	9,499	4,994	3,660	725	121
		High alternative projections			
1998	8,006	4,126	3,108	661	111
1999	8,104	4,175	3,161	660	108
2000	8,259	4,269	3,221	661	108
2001	8,393	4,349	3,272	664	108
2002	8,481	4,399	3,303	670	108
2003	8,616	4,474	3,353	678	110
2004	8,768	4,553	3,414	690	112
2005	8,930	4,638	3,475	703	114
2006	9,144	4,755	3,554	718	116
2007	9,389	4,888	3,646	736	120
2008	9,653	5,034	3,743	752	123
2009	9,879	5,165	3,824	764	126
2010	10,054	5,269	3,882	776	128

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table 32.—Full-time-equivalent enrollment in private institutions of higher education, by level of student and type of institution, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total	Undergraduate 4-year	Undergraduate 2-year	Graduate 4-year	First-professional 4-year
1985	2,276	1,603	221	299	152
1986	2,286	1,614	220	302	150
1987	2,292	1,632	201	311	148
1988	2,369	1,690	209	322	148
1989	2,411	1,709	216	335	151
1990	2,427	1,730	197	349	151
1991	2,500	1,759	212	370	158
1992	2,526	1,788	194	385	159
1993	2,541	1,791	184	399	166
1994	2,565	1,806	176	415	169
1995	2,585	1,823	168	424	171
1996	2,627	1,856	162	439	170
1997	2,645	1,892	138	448	167
		Middle alternative projections			
1998	2,663	1,910	165	426	163
1999	2,684	1,932	167	425	160
2000	2,731	1,977	170	425	159
2001	2,773	2,014	173	427	159
2002	2,799	2,035	174	430	160
2003	2,835	2,063	176	434	161
2004	2,871	2,090	179	439	163
2005	2,909	2,118	181	444	165
2006	2,962	2,159	185	451	167
2007	3,026	2,208	189	459	171
2008	3,098	2,264	194	466	174
2009	3,161	2,314	198	472	176
2010	3,212	2,355	201	477	179
		Low alternative projections			
1998	2,663	1,910	165	426	163
1999	2,684	1,933	167	425	160
2000	2,742	1,984	171	427	159
2001	2,800	2,033	175	431	161
2002	2,832	2,059	176	435	163
2003	2,864	2,084	178	438	164
2004	2,891	2,104	180	441	165
2005	2,920	2,127	182	445	167
2006	2,963	2,160	185	450	169
2007	3,013	2,199	188	455	171
2008	3,069	2,243	192	460	173
2009	3,117	2,283	195	463	175
2010	3,155	2,315	197	467	176
		High alternative projections			
1998	2,663	1,910	165	426	163
1999	2,684	1,932	167	425	160
2000	2,731	1,976	170	425	159
2001	2,773	2,014	173	427	159
2002	2,802	2,037	175	431	160
2003	2,847	2,072	177	436	161
2004	2,898	2,109	181	444	164
2005	2,952	2,149	184	452	167
2006	3,025	2,204	189	462	171
2007	3,109	2,266	194	473	175
2008	3,199	2,335	200	484	180
2009	3,276	2,396	205	492	183
2010	3,339	2,444	209	499	187

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Fall Enrollment in Colleges and Universities" surveys; Integrated Postsecondary Education Data System (IPEDS) surveys; and Higher Education Enrollment Model. (This table was prepared March 2000.)

Chapter 3

High School Graduates

National

The number of high school graduates is projected to increase 12 percent over the projection period (figure 34). Increases in the number of graduates are expected for both public and private schools. The significant rise in the number of graduates reflects the increase in the 18-year-old population over the projection period, rather than changes in the graduation rates of 12th graders.

However, projections of graduates could be impacted by changes in policies affecting graduation requirements. Projections of public school graduates that have been produced over the past 17 years are less accurate than projections of public elementary and secondary enrollment, but more accurate than projections of earned degrees by level. For more information, see appendix A2, page 129.

Average annual rate of change (in percent)

	1984-85 to 1998-99	Projected 1998-99 to 2009-10
Total	0.0	1.0
Public	0.0	1.0
Private	0.5	1.0

Total High School Graduates

A high school graduate is defined as an individual who has received formal recognition from school authorities, by the granting of a diploma, for completing a prescribed course of studies at the secondary level school. This definition does not include other high school completers, high school equivalency recipients, or other diploma recipients.

The number of high school graduates from public and private schools decreased from 2.8 million in 1984-85 to 2.5 million in 1993-94 (table 33 and figure 35). Then, it increased to 2.8 million in 1998-99. The total number of high school graduates is projected to rise to 3.1 million by 2009-10, an increase of 12 percent from 1998-99, or an average annual growth rate of 1.0 percent.

High School Graduates, by Control of Institution

The number of graduates of public high schools decreased from 2.5 million in 1984-85 to 2.2 million in 1993-94 (figure 31). Then, it increased to 2.5 million in 1998-99. Over the projection period, public high school graduates are projected to increase to 2.8 million by 2009-10, an increase of 12 percent from 1998-99, or an average annual growth rate of 1.0 percent.

The number of graduates of private high schools is projected to increase from an estimated 290,000 in 1998-99 to 324,000 by 2009-10, an increase of 12 percent, or an average annual growth rate of 1.0 percent.

State

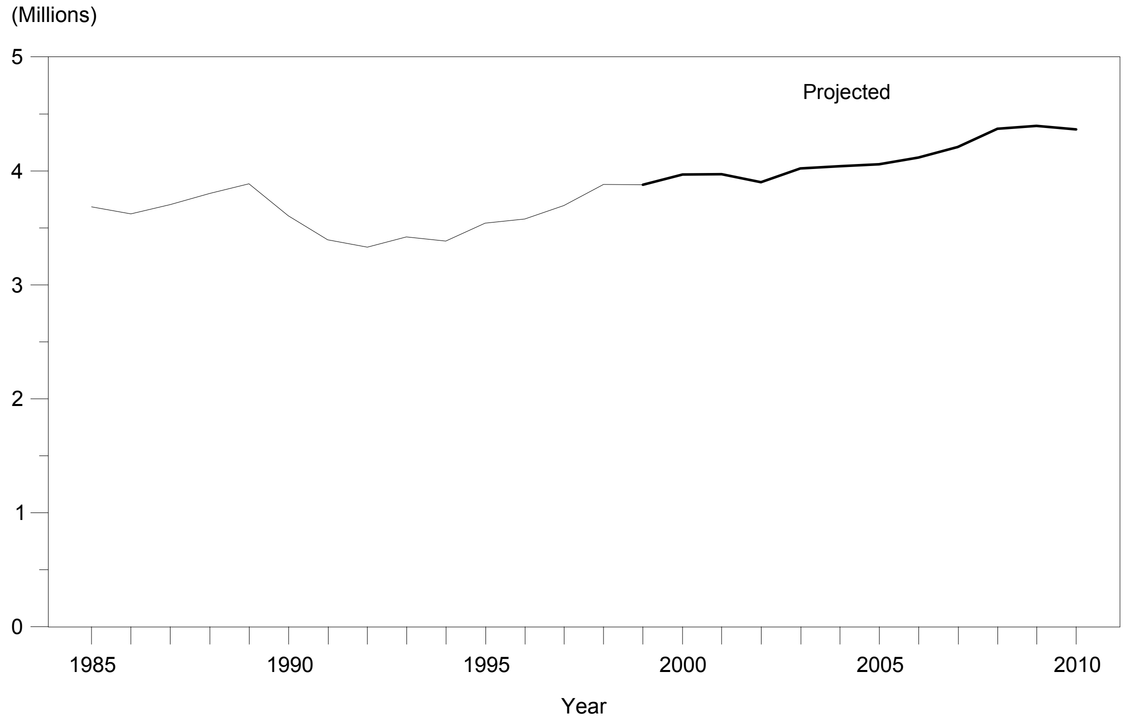
The projected increases in public high school enrollment (grades 9 through 12) between 1999 and 2010 will cause corresponding increases in the number of public high school graduates. The number of public high school graduates is expected to increase by 12 percent between 1998-99 and 2009-10. This increase will be reflected in many states, with 33 states showing increases (table 34 and figure 38). Each region of the country is expected to reflect this increase in the number of public high school graduates. Projected trends in the number of public high school graduates by state could be impacted by changes in policies affecting graduation requirements.

The number of public high school graduates in the Northeast is expected to increase 11 percent between 1998-99 and 2009-10 (table 35 and figure 39). Large increases are expected in Connecticut (23 percent), Massachusetts (21 percent), New Hampshire (15 percent), and New Jersey (17 percent). Smaller increases are expected in New York (8 percent), Pennsylvania (4 percent), and Rhode Island (11 percent). Decreases are projected for Maine (8 percent) and Vermont (4 percent).

The number of public high school graduates in the Midwest is expected to increase by 4 percent between 1998-99 and 2009-10. Increases are expected in Illinois (18 percent) and Missouri (11 percent). Smaller increases are projected for Indiana (5 percent), Michigan (5 percent), and Minnesota (2 percent). Decreases are expected in Iowa (4 percent), Kansas (1 percent), Nebraska (7 percent), North Dakota (23 percent), Ohio (1 percent), South Dakota (28 percent), and Wisconsin (1 percent). Between 1998-99 and 2009-10, the number of public high school graduates in the South will increase by 13 percent. The largest increases are expected in Delaware (16 percent), Florida (28 percent), Georgia (23 percent), Maryland (19 percent), North Carolina (31 percent), Tennessee (10 percent), Texas (16 percent), and Virginia (14 percent). Other increases are projected for Alabama (0.4 percent), Kentucky (2 percent), and South Carolina (6 percent). Decreases are expected in the Arkansas (1 percent), District of Columbia (31 percent), Louisiana (10 percent), Mississippi (2 percent), Oklahoma (2 percent), and West Virginia (13 percent).

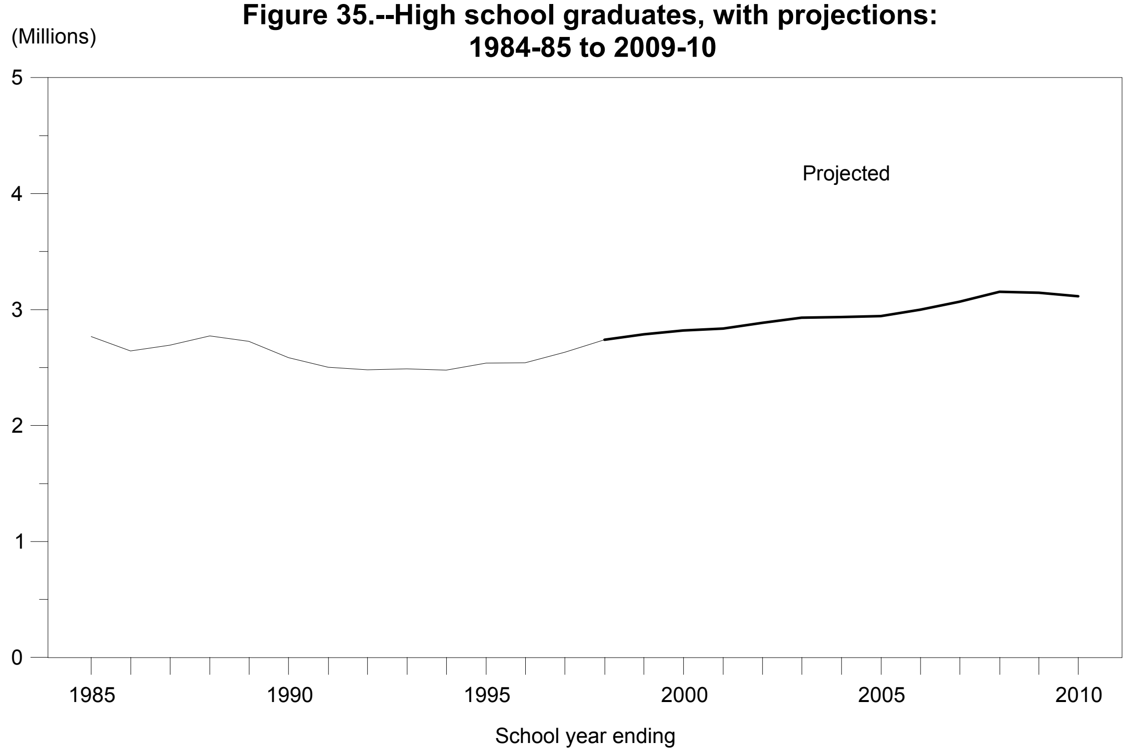
The number of high school graduates in the West is expected to increase, rising by 20 percent. The largest increases are expected in Alaska (19 percent), Arizona (48 percent), California (22 percent), Colorado (23 percent), Nevada (79 percent), and Washington (15 percent). Other increases are projected in Hawaii (7 percent), Idaho (2 percent), New Mexico (5 percent), and Oregon (9 percent). Decreases are projected for Montana (13 percent), Utah (1 percent), and Wyoming (19 percent).

Figure 34.--18-year-old population, with projections: 1985 to 2010



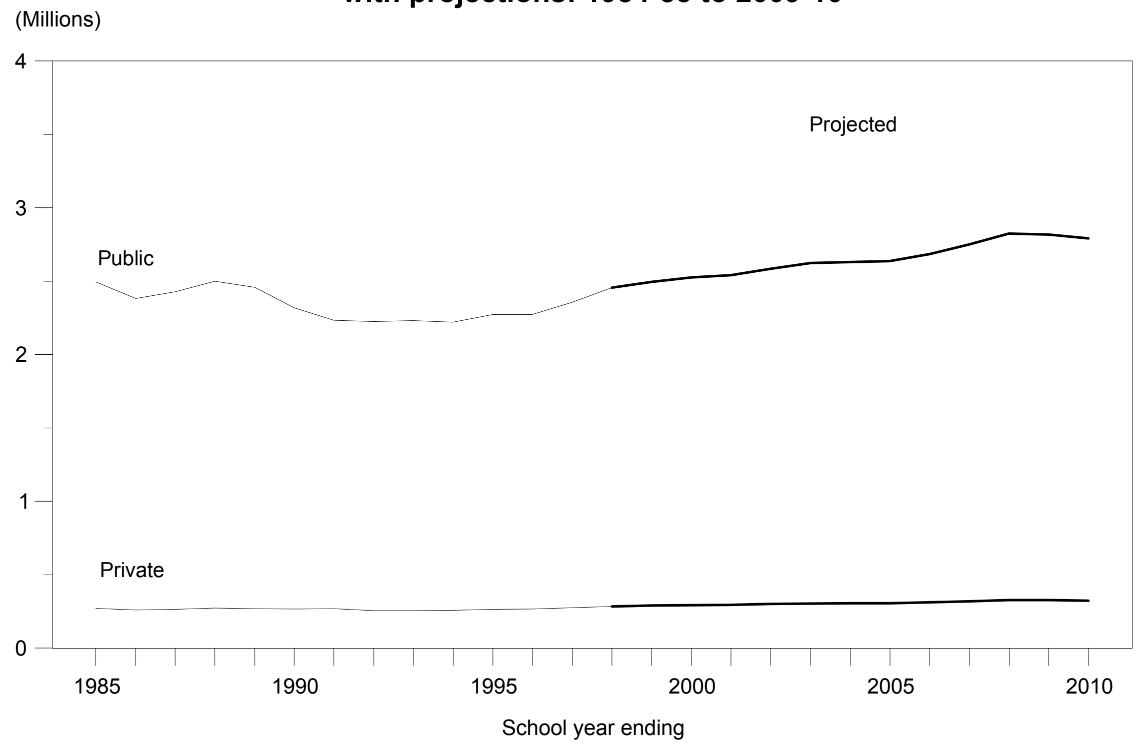
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000.

Figure 35.--High school graduates, with projections: 1984-85 to 2009-10



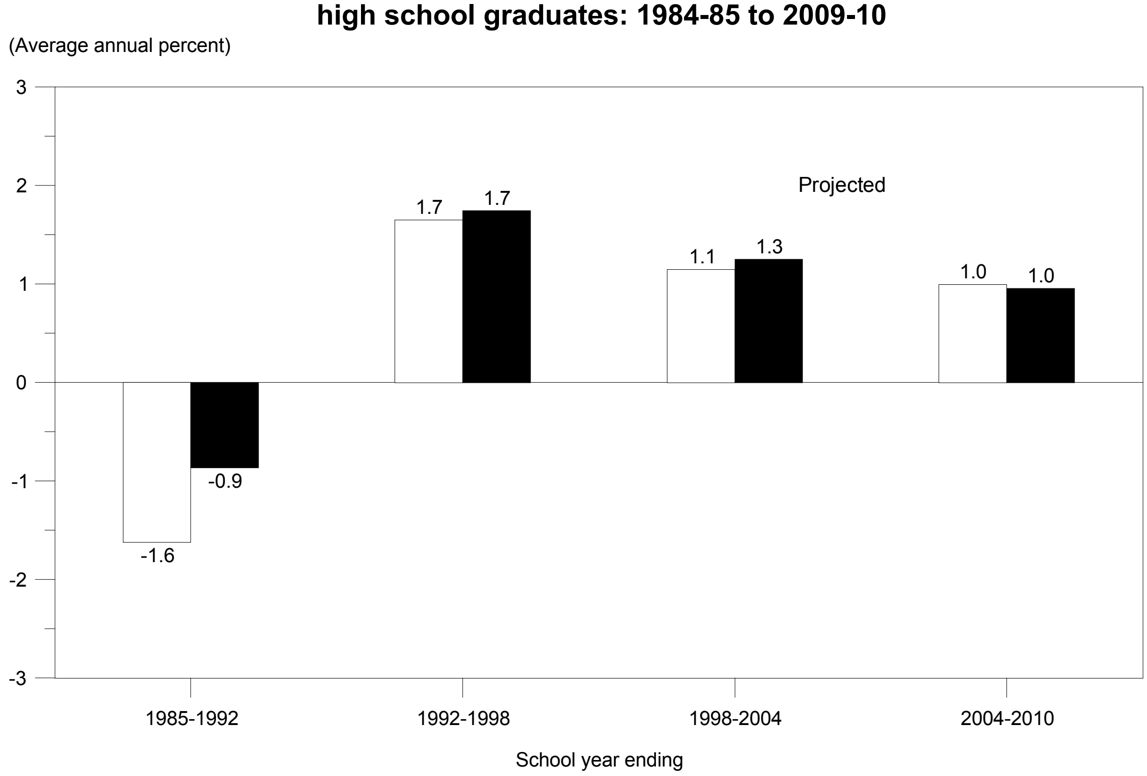
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics, Early Estimates*; and National Elementary and Secondary High School Graduates Model.

Figure 36.--High school graduates, by control of institution, with projections: 1984-85 to 2009-10



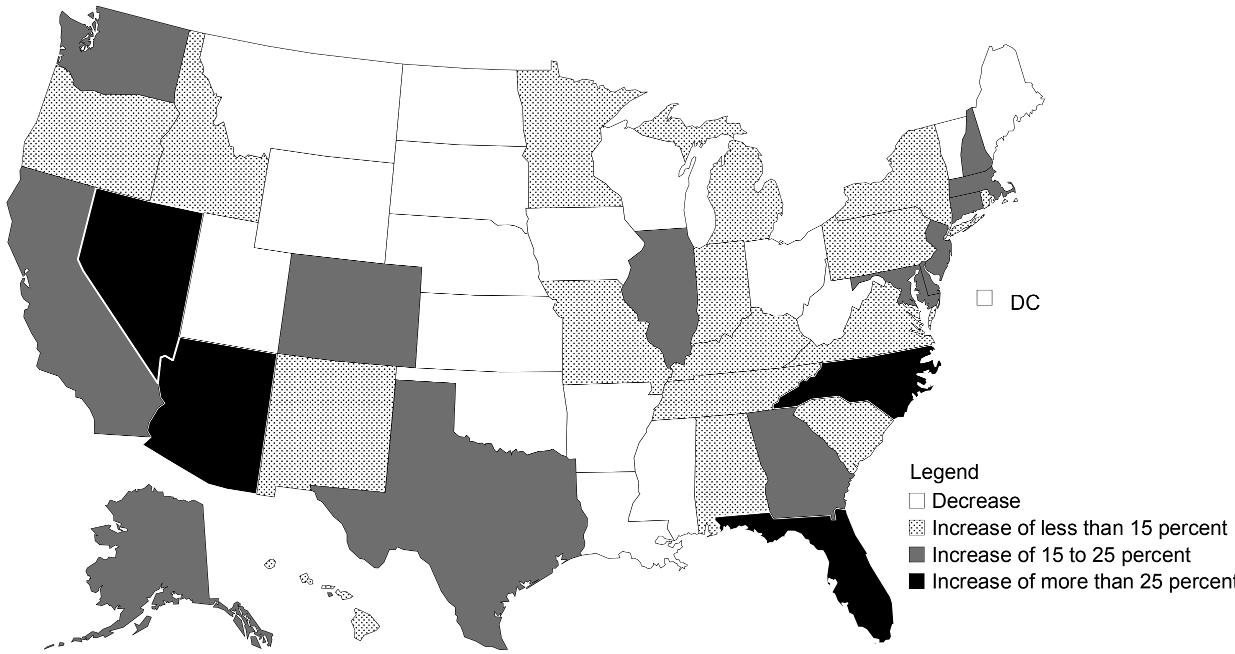
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National Elementary and Secondary High School Graduates Model.

Figure 37.--Average annual rates of change for high school graduates: 1984-85 to 2009-10



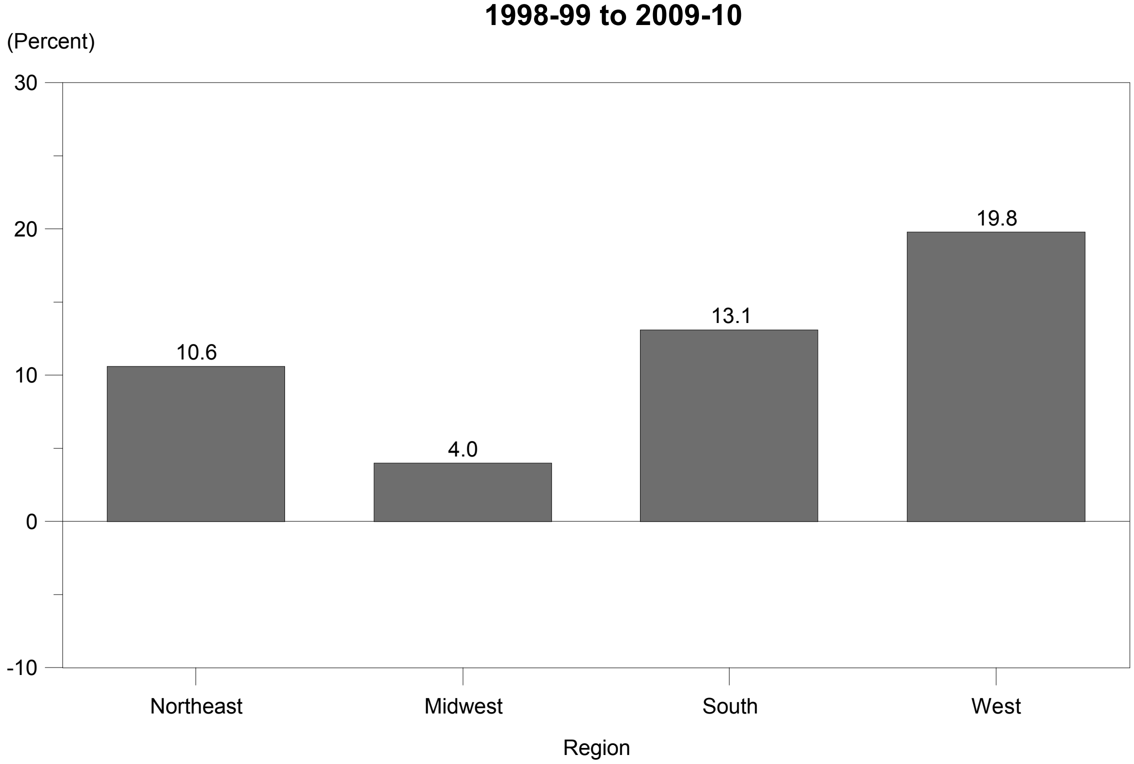
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National Elementary and Secondary High School Graduates Model.

Figure 38.--Percent change in number of public high school graduates, by state: Fall 1998-99 to fall 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public High School Graduates Model.

Figure 39.--Percent change in number of public high school graduates, by region: 1998-99 to 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys; and State Public High School Graduates Model.

Table 33.—High school graduates, by control of institution, with projections: 1984–85 to 2009–10

(In thousands)

Year ending	Total	Public	Private
1985	2,767	2,495	272
1986	2,643	2,383	260
1987	2,694	2,429	265
1988	2,773	2,500	273
1989	2,727	2,459	268
1990	2,586	2,320	266
1991	2,503	2,235	268
1992	2,482	2,226	256
1993	2,490	2,233	257
1994	2,479	2,221	258
1995	2,538	2,274	264
1996	2,540	2,273	267
1997	2,633	2,357	276
1998	2,740	2,456	284
		Projected	
1999	2,786	2,496	290
2000	2,820	2,526	294
2001	2,837	2,542	296
2002	2,886	2,585	301
2003	2,929	2,624	305
2004	2,935	2,630	306
2005	2,944	2,637	307
2006	2,998	2,685	312
2007	3,069	2,750	320
2008	3,153	2,825	328
2009	3,146	2,818	328
2010	3,115	2,791	324

NOTE: Some data have been revised from previously published figures. Prior to 1989–90, numbers for private high school graduates were estimated by NCES. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; Private School Universe Survey, 1995–96; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and National High School Graduates Model. (This table was prepared March 2000.)

Table 34.—High school graduates in public schools, by region and state, with projections: 1991–92 to 2009–10

Region and state	Actual							Projected		
	1991–92	1992–93	1993–94	1994–95	1995–96	1996–97	1997–98	1998–99	1999–2000	2000–01
United States	2,226,016	2,233,241	2,220,849	2,273,541	2,273,109	2,356,652	2,455,839	2,495,990	2,526,100	2,541,760
Northeast	419,115	413,955	408,755	413,417	417,843	432,280	430,450	439,430	439,930	447,830
Connecticut	27,079	26,799	26,330	26,445	26,319	27,029	27,885	28,530	29,660	30,340
Maine	13,177	12,103	11,384	11,501	11,795	12,019	12,171	12,150	12,170	12,400
Massachusetts	50,317	48,321	47,453	47,679	47,993	49,008	50,452	51,430	52,550	53,300
New Hampshire	10,329	10,065	9,933	10,145	10,094	10,487	10,843	11,330	11,940	12,140
New Jersey	66,669	67,134	66,125	67,403	67,704	70,028	65,106	68,590	70,020	69,970
New York	134,573	132,963	132,708	132,401	134,401	140,861	138,531	140,020	133,760	139,400
Pennsylvania	103,881	103,715	101,958	104,146	105,981	108,817	110,919	112,900	114,550	114,910
Rhode Island	7,859	7,640	7,450	7,826	7,689	7,850	8,074	8,140	8,610	8,410
Vermont	5,231	5,215	5,414	5,871	5,867	6,181	6,469	6,350	6,680	6,950
Midwest	578,106	588,810	578,914	596,753	592,775	614,217	640,659	645,300	645,430	641,430
Illinois	102,742	103,628	102,126	105,164	104,626	110,170	114,611	117,040	114,390	113,440
Indiana	56,630	57,559	54,650	56,058	56,330	57,463	58,899	58,290	58,480	56,980
Iowa	29,224	30,677	30,247	31,268	31,689	32,986	34,189	34,390	34,440	34,340
Kansas	24,129	24,720	25,319	26,125	25,786	26,648	27,856	29,000	29,030	29,720
Michigan	87,756	85,302	83,385	84,628	85,530	89,695	92,732	91,870	92,930	91,880
Minnesota	46,228	48,002	47,514	49,354	50,481	48,193	54,494	55,620	56,780	56,890
Missouri	46,556	46,864	46,566	48,862	49,011	50,543	52,031	51,920	51,890	53,550
Nebraska	17,057	17,569	17,072	17,969	18,014	18,636	19,719	20,200	20,230	19,630
North Dakota	7,438	7,310	7,522	7,817	8,027	8,025	8,170	8,400	8,500	8,300
Ohio	104,522	109,200	107,700	109,418	102,098	107,422	111,211	111,620	112,120	110,180
South Dakota	7,261	7,952	8,442	8,355	8,532	9,247	9,140	8,940	8,920	8,470
Wisconsin	48,563	50,027	48,371	51,735	52,651	55,189	57,607	58,000	57,730	58,060
South	762,751	754,670	748,079	770,737	766,273	787,392	838,359	841,620	856,090	860,700
Alabama	38,680	36,007	34,447	36,268	35,043	35,611	38,089	37,750	36,450	37,070
Arkansas	25,845	25,655	24,990	24,636	25,094	25,146	26,855	26,740	26,670	26,730
Delaware	5,325	5,492	5,230	5,234	5,609	5,953	6,439	6,270	6,270	6,390
District of Columbia	3,385	3,136	3,207	2,974	2,696	2,853	2,777	2,400	2,290	2,020
Florida	93,674	89,428	88,032	89,827	89,242	95,082	98,498	101,700	102,540	107,530
Georgia	57,742	57,602	56,356	56,660	56,271	58,996	58,525	62,240	63,990	64,740
Kentucky	33,896	36,361	38,454	37,626	36,641	36,941	37,270	37,280	37,220	37,300
Louisiana	32,247	33,682	34,822	36,480	36,467	36,495	38,030	37,180	37,180	36,290
Maryland	39,720	39,523	39,091	41,387	41,785	42,856	44,555	47,540	49,120	50,180
Mississippi	22,912	23,597	23,379	23,837	23,032	23,388	24,502	23,990	23,990	23,890
North Carolina	61,157	60,460	57,738	59,540	57,014	57,886	59,292	60,190	62,320	62,150
Oklahoma	32,670	30,542	31,872	33,319	33,060	33,536	35,213	36,070	37,300	37,080
South Carolina	30,698	31,297	30,603	30,680	30,182	30,829	31,951	32,050	32,180	31,100
Tennessee	45,138	44,166	40,643	43,556	43,792	39,866	57,236	48,300	49,360	48,430
Texas	162,270	160,546	163,191	170,322	171,844	181,794	197,186	198,890	205,070	206,150
Virginia	57,338	56,948	56,140	58,260	58,166	60,587	61,777	63,280	64,300	64,670
West Virginia	20,054	20,228	19,884	20,131	20,335	19,573	20,164	19,760	19,860	18,970
West	466,044	475,806	485,101	492,634	496,218	522,763	546,371	568,870	584,650	591,810
Alaska	5,535	5,535	5,747	5,765	5,945	6,133	6,462	6,980	7,090	7,150
Arizona	31,264	31,747	31,799	30,989	30,008	34,082	36,361	37,160	39,150	40,520
California	244,594	249,320	253,083	255,200	259,071	269,071	282,897	301,310	306,670	311,040
Colorado	31,059	31,839	31,867	32,409	32,608	34,231	35,794	36,740	38,410	39,130
Hawaii	9,160	8,854	9,369	9,407	9,387	8,929	9,670	9,480	10,200	10,290
Idaho	12,734	12,974	13,281	14,198	14,667	15,407	15,523	15,640	15,980	15,820
Montana	9,046	9,389	9,601	10,134	10,139	10,322	10,656	10,910	11,030	10,850
Nevada	8,811	9,042	9,485	10,038	10,374	12,425	13,052	13,360	14,420	14,690
New Mexico	14,824	15,172	14,892	14,928	15,402	15,700	16,529	17,080	17,090	17,450
Oregon	25,305	26,301	26,338	26,713	26,570	27,720	27,754	28,220	29,590	30,020
Utah	23,513	24,197	26,407	27,670	26,293	30,753	31,567	30,820	31,560	30,380
Washington	44,381	45,262	47,235	49,294	49,862	51,609	53,679	54,830	56,970	58,190
Wyoming	5,818	6,174	5,997	5,889	5,892	6,381	6,427	6,360	6,490	6,290

Table 34.—High school graduates in public schools, by region and state, with projections: 1991–92 to 2009–10—Continued

Region and state	Projected								
	2001–02	2002–03	2003–04	2004–05	2005–06	2006–07	2007–08	2008–09	2009–10
United States	2,585,080	2,624,350	2,629,700	2,637,340	2,685,430	2,749,630	2,824,880	2,818,470	2,790,560
Northeast	455,020	465,220	470,300	475,800	486,680	496,410	505,950	497,090	486,020
Connecticut	31,520	32,300	33,160	33,740	34,900	35,800	36,390	35,940	35,130
Maine	12,560	12,740	12,640	12,150	12,330	12,090	11,930	11,490	11,190
Massachusetts	55,710	57,780	58,310	59,690	61,320	63,170	64,570	63,270	62,360
New Hampshire	12,340	13,010	12,950	13,410	13,390	13,570	13,780	13,350	13,040
New Jersey	70,220	72,770	73,310	75,440	77,940	80,920	82,390	81,770	80,360
New York	143,890	144,390	145,300	147,100	150,830	153,820	158,020	154,260	151,390
Pennsylvania	112,900	116,580	119,030	118,530	120,220	120,970	122,740	121,370	117,400
Rhode Island	8,690	8,730	8,740	8,960	9,120	9,320	9,570	9,300	9,060
Vermont	7,190	6,910	6,850	6,770	6,640	6,770	6,560	6,350	6,090
Midwest	650,340	660,470	656,230	647,740	654,350	668,990	687,340	680,990	670,800
Illinois	120,300	123,110	124,120	121,820	126,470	131,000	139,270	138,070	137,480
Indiana	57,580	56,340	56,040	56,190	58,710	60,480	61,650	62,310	61,070
Iowa	34,350	34,440	33,730	32,490	32,560	33,280	34,030	33,490	33,070
Kansas	29,520	29,670	29,320	28,850	28,780	28,820	29,290	28,870	28,590
Michigan	93,250	95,700	94,420	94,550	94,700	97,690	101,850	100,310	96,470
Minnesota	57,870	58,770	58,650	57,080	57,580	58,080	58,940	57,240	56,770
Missouri	53,090	54,530	54,310	53,750	53,890	55,140	56,280	56,930	57,650
Nebraska	20,570	19,920	19,640	19,180	19,010	19,200	19,840	19,300	18,880
North Dakota	8,070	7,910	7,570	7,210	7,180	7,040	6,790	6,640	6,480
Ohio	108,040	111,190	110,300	109,560	109,710	111,860	112,890	112,220	110,300
South Dakota	8,220	8,180	7,890	7,560	7,160	7,110	6,910	6,580	6,430
Wisconsin	59,480	60,720	60,260	59,510	58,590	59,280	59,600	59,040	57,610
South	876,020	886,040	885,950	892,420	904,340	929,720	947,230	955,230	952,020
Alabama	36,450	35,830	35,340	35,870	36,000	36,830	37,610	37,790	37,900
Arkansas	26,330	26,090	25,500	25,510	25,810	26,530	27,200	26,930	26,370
Delaware	6,630	6,620	6,800	6,720	6,990	6,810	6,930	7,160	7,260
District of Columbia	2,050	1,950	1,920	1,750	1,710	1,850	1,750	1,780	1,650
Florida	116,760	117,090	118,720	120,270	123,310	127,100	130,370	130,690	130,060
Georgia	65,940	66,690	67,710	69,110	70,950	73,710	76,500	76,610	76,340
Kentucky	37,070	36,790	35,570	35,790	35,200	36,760	34,890	37,280	37,950
Louisiana	35,370	36,200	35,580	34,510	33,820	33,690	33,980	33,950	33,440
Maryland	51,260	52,390	52,690	54,200	55,200	57,030	58,300	57,460	56,490
Mississippi	22,760	22,510	22,330	22,070	22,490	22,630	23,700	23,730	23,450
North Carolina	64,850	66,280	67,140	69,300	71,880	75,100	76,940	78,110	78,670
Oklahoma	36,530	36,460	35,870	35,080	34,980	35,350	35,810	35,760	35,350
South Carolina	33,010	32,820	32,840	32,930	33,700	34,840	31,920	34,840	34,080
Tennessee	47,770	49,250	49,480	49,490	50,350	52,790	54,430	54,870	53,150
Texas	208,950	213,300	213,410	215,020	217,250	220,410	226,440	228,150	230,770
Virginia	66,080	67,930	67,290	67,310	67,600	70,880	72,880	72,460	71,880
West Virginia	18,240	17,850	17,750	17,490	17,120	17,410	17,620	17,660	17,230
West	603,700	612,620	617,210	621,390	640,060	654,510	684,360	685,170	681,720
Alaska	7,660	7,850	8,050	7,980	8,140	8,190	8,400	8,420	8,300
Arizona	41,540	43,750	45,230	45,540	47,550	49,540	52,380	54,670	54,850
California	317,370	325,060	327,100	331,690	344,400	352,050	371,880	369,740	366,370
Colorado	40,840	40,790	41,660	41,700	42,170	43,100	44,330	44,960	45,250
Hawaii	10,130	9,870	9,910	9,900	10,150	10,290	10,720	10,440	10,140
Idaho	15,940	15,300	14,810	15,080	15,530	15,540	16,030	15,840	15,920
Montana	10,860	10,800	10,650	10,310	10,060	9,800	9,900	9,580	9,470
Nevada	15,750	16,560	17,430	18,300	19,270	20,670	22,250	23,170	23,900
New Mexico	17,260	17,380	17,260	17,330	17,780	18,060	18,290	18,380	17,960
Oregon	30,220	30,250	30,160	29,790	30,090	30,950	31,370	31,420	30,830
Utah	29,830	29,250	28,930	28,450	29,370	29,210	30,110	30,200	30,520
Washington	59,890	59,620	60,030	59,570	59,900	61,660	63,170	62,980	63,100
Wyoming	6,410	6,170	6,020	5,770	5,650	5,460	5,530	5,380	5,120

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public High School Graduates Model. (This table was prepared June 2000.)

Table 35.—Percent change in number of public high school graduates, by region and state, with projections: 1991–92 to 2009–10

Region and state	Actual	Projected		
	1991–92 to 1998–99	1998–99 to 2003–04	2003–04 to 2009–10	1998–99 to 2009–10
United States	12.1	5.4	6.1	11.8
Northeast	4.8	7.0	3.3	10.6
Connecticut	5.4	16.2	5.9	23.1
Maine	-7.8	4.1	-11.5	-7.8
Massachusetts	2.2	13.4	7.0	21.3
New Hampshire	9.7	14.3	0.7	15.0
New Jersey	2.9	6.9	9.6	17.2
New York	4.0	3.8	4.2	8.1
Pennsylvania	8.7	5.4	-1.4	4.0
Rhode Island	3.5	7.4	3.6	11.3
Vermont	21.4	7.8	-11.1	-4.1
Midwest	11.6	1.7	2.2	4.0
Illinois	13.9	6.1	10.8	17.5
Indiana	2.9	-3.9	9.0	4.8
Iowa	17.7	-1.9	-1.9	-3.8
Kansas	20.2	1.1	-2.5	-1.4
Michigan	4.7	2.8	2.2	5.0
Minnesota	20.3	5.4	-3.2	2.1
Missouri	11.5	4.6	6.2	11.0
Nebraska	18.4	-2.8	-3.9	-6.6
North Dakota	13.0	-9.9	-14.4	-22.9
Ohio	6.8	-1.2	0.0	-1.2
South Dakota	23.1	-11.7	-18.5	-28.1
Wisconsin	19.4	3.9	-4.4	-0.7
South	10.3	5.3	7.5	13.1
Alabama	-2.4	-6.4	7.2	0.4
Arkansas	3.5	-4.6	3.4	-1.4
Delaware	17.8	8.4	6.7	15.8
District of Columbia	-29.0	-20.0	-14.2	-31.3
Florida	8.6	16.7	9.6	27.9
Georgia	7.8	8.8	12.7	22.7
Kentucky	10.0	-4.6	6.7	1.8
Louisiana	15.3	-4.3	-6.0	-10.0
Maryland	19.7	10.8	7.2	18.8
Mississippi	4.7	-6.9	5.0	-2.2
North Carolina	-1.6	11.5	17.2	30.7
Oklahoma	10.4	-0.5	-1.4	-2.0
South Carolina	4.4	2.5	3.8	6.3
Tennessee	7.0	2.5	7.4	10.0
Texas	22.6	7.3	8.1	16.0
Virginia	10.4	6.3	6.8	13.6
West Virginia	-1.5	-10.2	-2.9	-12.8
West	22.1	8.5	10.5	19.8
Alaska	26.1	15.4	3.0	18.8
Arizona	18.9	21.7	21.3	47.6
California	23.2	8.6	12.0	21.6
Colorado	18.3	13.4	8.6	23.2
Hawaii	3.5	4.5	2.3	6.9
Idaho	22.8	-5.3	7.5	1.8
Montana	20.6	-2.4	-11.0	-13.2
Nevada	51.6	30.5	37.1	78.9
New Mexico	15.2	1.0	4.1	5.2
Oregon	11.5	6.9	2.2	9.2
Utah	31.1	-6.1	5.5	-1.0
Washington	23.5	9.5	5.1	15.1
Wyoming	9.3	-5.3	-14.9	-19.4

NOTE: Calculations are based on unrounded numbers.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys and State Public High School Graduates Model. (This table was prepared June 2000.)

Chapter 4

Earned Degrees Conferred

The historical growth in enrollment of women in institutions of higher education has led to a substantial increase in the number of earned degrees conferred. Between 1984-85 and 1997-98, the number of degrees awarded to women rose at all levels. In 1997-98, women earned the majority of associate's, bachelor's, and master's degrees, and more than two-fifths of doctor's and first-professional degrees. Over the projection period, the number of degrees awarded to women will rise at all levels. While degrees awarded to men are projected to increase or remain steady at the associate’s, bachelor’s, and doctor’s levels, they will decrease at the master’s and first-professional levels.

Projections of earned degrees by level and sex were based primarily on college-age populations and higher education enrollment by level enrolled and attendance status. Factors that affect future levels of earned degrees such as choice of degree, demand for occupations, etc. were not included in the projection models. NCES projections of earned degrees by level that have been produced over the last 14 years are less accurate than projections of public elementary and secondary enrollment, higher education enrollment, and public high school graduates. For more information, see appendix A3, page 131.

Associate's Degrees

Between 1984-85 and 1987-88, the number of associate's degrees decreased from 454,712 to 435,085. Then, it increased to an estimated 563,000 in 1997-98 (table 36 and figure 40). It is projected to increase to 611,000 by 2009-10, an increase of 9 percent from 1997-98. The number of associate's degrees awarded to men decreased from 202,932 in 1984-85 to 186,316 in 1988-89, before rising to an estimated 220,000 in 1997-98. This number is projected to increase to 224,000 by 2009-10. The number of associate's degrees awarded to women fell from 251,780 in 1984-85 to 245,038 in 1987-88. Then, it increased to an estimated 342,000 in 1997-98, an increase of 36 percent from 1984-85. This number is projected to increase to 387,000 by 2009-10, an increase of 13 percent from 1997-98.

Bachelor's Degrees

The number of bachelor's degrees increased from 979,477 in 1984-85 to an estimated 1,175,000 in 1997-98, an increase of 20 percent (table 37 and figure 41). This number is expected to increase to 1,324,000 by 2009-10, an increase of 13 percent from 1997-98. The number of bachelor's degrees awarded to men increased from 482,528 in 1984-85 to 485,923 in 1985-86 and then declined for two years, before rising to 532,881 in 1992-93. Then, this number decreased to an estimated 519,000 in 1997-98. This number is expected to decrease to 515,000 by 2000-01 and then increase to 547,000 by 2009-10, an increase of 5 percent from 1997-98. The number of bachelor's degrees awarded to women increased from 496,949 in 1984-85 to an estimated 656,000 in 1997-98, an increase of 32 percent. This number is expected to increase to 776,000 by 2009-10, an increase of 18 percent from 1997-98.

Master's Degrees

The number of master's degrees increased from 286,251 in 1984-85 to an estimated 427,000 in 1997-98, an increase of 49 percent from 1984-85 (table 38 and figure 42). This number is expected to decrease to 399,000 in 2002-03. Then, it is projected to increase to 439,000 by 2009-10. The number of master's degrees awarded to men increased from 143,390 in 1984-85 to an estimated 181,000 in 1997-98. This number is projected to decrease 165,000 in 2001-02 and then rise to 175,000 by 2009-10. The number of master's degrees awarded to women increased from 142,861 in 1984-85 to 246,000 in 1997-98. This number is expected to be around 264,000 in 2009-10.

Doctor's Degrees

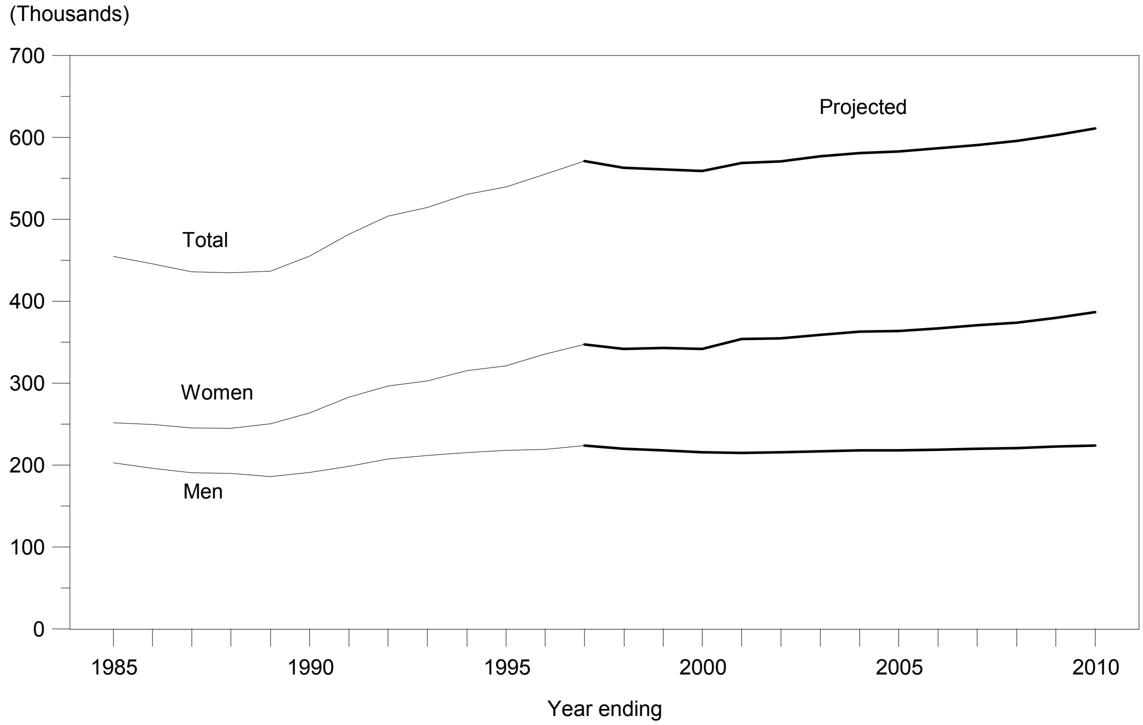
The number of doctor's degrees increased from 32,943 in 1984-85 to about 46,600 in 1997-98, an increase of 41 percent (table 39 and figure 43). This number is expected to decrease to 44,900 in 2001-02. After 2001-02, the number of doctor’s degrees is expected to rise again, reaching 47,100 in 2009-10.

The number of doctor's degrees awarded to men increased from 21,700 in 1984-85 to an estimated 27,300 in 1997-98. This number is expected to decrease to 26,400 by 2001-02 and then increase to 27,100 by 2009-10. The number of doctor's degrees awarded to women rose from 11,243 in 1984-85 to an estimated 19,400 in 1997-98, an increase of 73 percent. The number of doctor's degrees awarded to women is projected to be 20,000 by 2009-10. The share of doctor's degrees awarded to women, which was 34 percent in 1984-85 and 42 percent in 1997-98, is projected to remain at 42 percent by 2009-10.

First-Professional Degrees

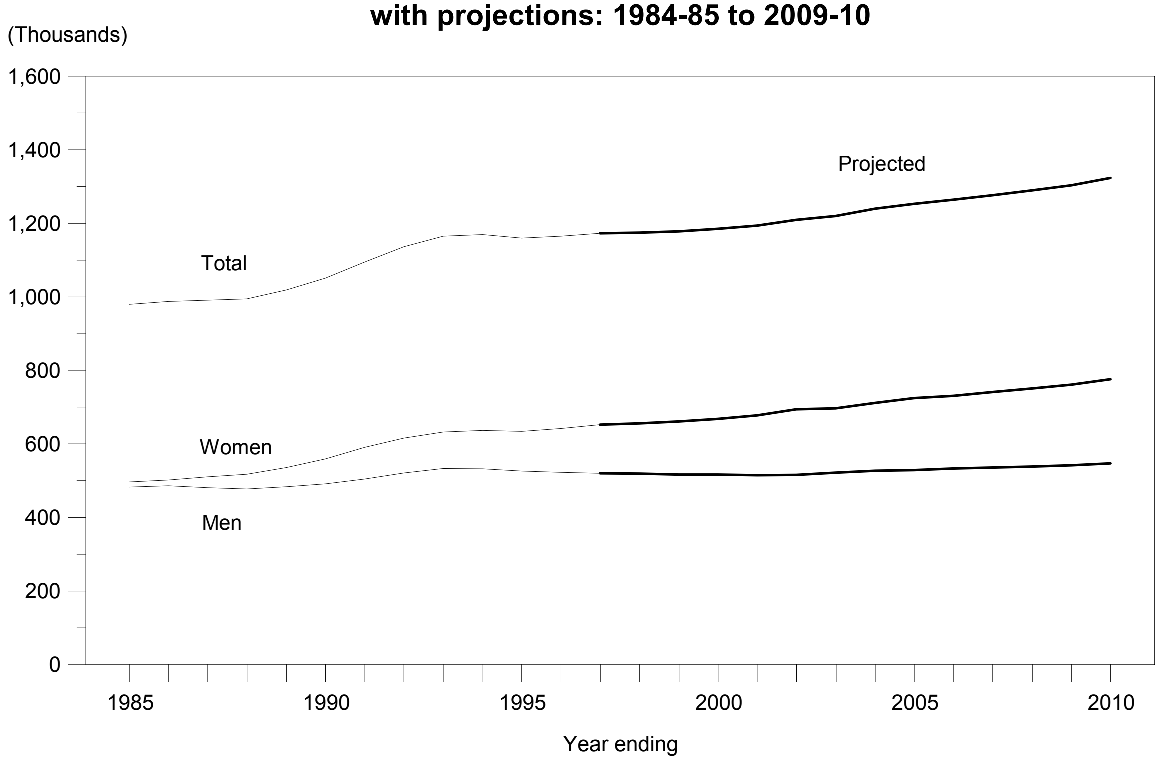
A first-professional degree is one that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree usually is based on a program requiring at least 2 academic years of work before entrance and a total of at least 6 years of work to complete the degree program, including both prior required college work and the professional program itself. These degrees include fields such as dentistry, medicine, pharmacy, law, and theological professions. The number of first-professional degrees awarded decreased from 75,063 in 1984-85 to 70,735 in 1987-88. Then, it increased to about 79,700 in 1997-98 (table 40 and figure 44). This number is expected to decrease to 75,200 in 2002-03 and then increase to 81,600 by 2009-10. The number of first-professional degrees awarded to men decreased from 50,455 in 1984-85 to 43,846 in 1990-91. Then, it increased to an estimated 45,800 in 1997-98. This number is projected to decrease to 41,500 in 2003-04 and then increase to 43,200 by 2009-10. The number of first-professional degrees awarded to women increased from 24,608 in 1984-85 to an estimated 33,900 in 1997-98, an increase of 38 percent. This number is expected to increase to 38,400 by 2009-10, an increase of 13 percent from 1997-98. The women's proportion of first-professional degrees rose from 33 percent in 1984-85 to 43 percent in 1997-98. By 2009-10, this proportion is expected to rise to 47 percent.

Figure 40.--Associate's degrees, by sex of recipient, with projections: 1984-85 to 2009-10



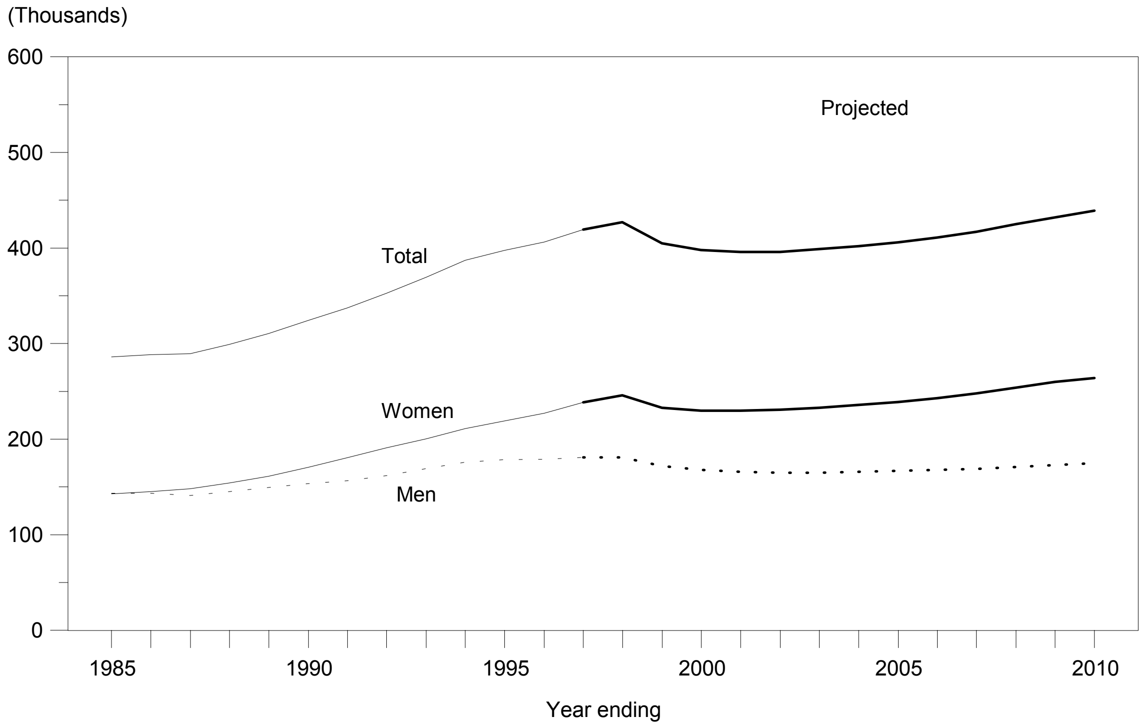
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 41.--Bachelor's degrees, by sex of recipient, with projections: 1984-85 to 2009-10



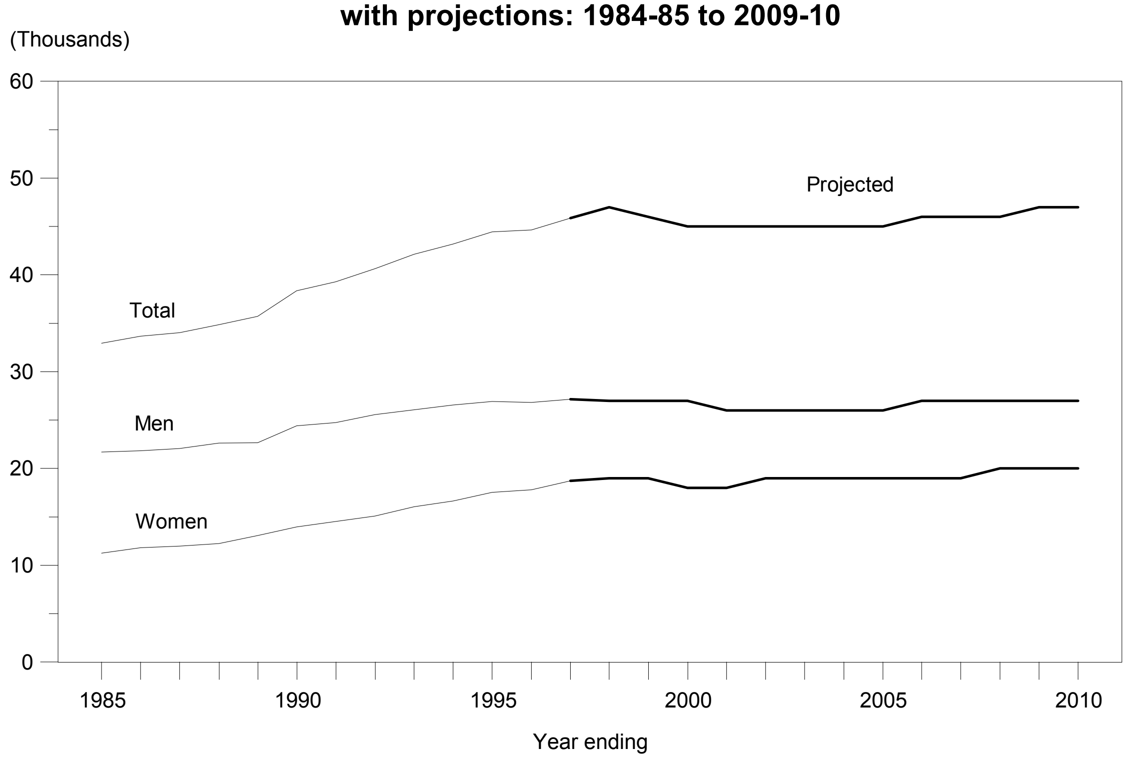
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 42.--Master's degrees, by sex of recipient, with projections: 1984-85 to 2009-10



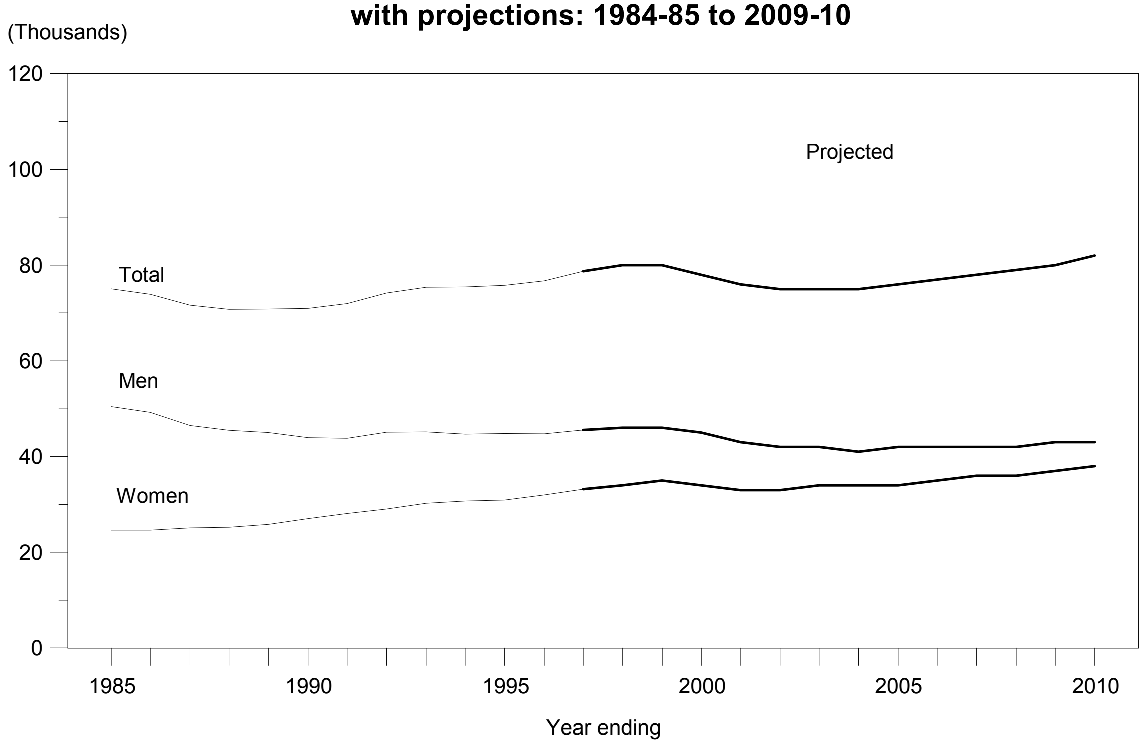
SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 43.--Doctor's degrees, by sex of recipient, with projections: 1984-85 to 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Figure 44.--First-professional degrees, by sex of recipient, with projections: 1984-85 to 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model.

Table 36.—Associate's degrees, by sex of recipient, with projections: 1984–85 to 2009–10

Year ending	Total	Men	Women
1985	454,712	202,932	251,780
1986	446,047	196,166	249,881
1987	436,304	190,839	245,465
1988	435,085	190,047	245,038
1989	436,764	186,316	250,448
1990	455,102	191,195	263,907
1991	481,720	198,634	283,086
1992	504,231	207,481	296,750
1993	514,756	211,964	302,792
1994	530,632	215,261	315,371
1995	539,691	218,352	321,339
1996	555,216	219,514	335,702
1997	571,226	223,948	347,278
		Projected	
1998	563,000	220,000	342,000
1999	561,000	218,000	343,000
2000	559,000	216,000	342,000
2001	569,000	215,000	354,000
2002	571,000	216,000	355,000
2003	577,000	217,000	359,000
2004	581,000	218,000	363,000
2005	583,000	218,000	364,000
2006	587,000	219,000	367,000
2007	591,000	220,000	371,000
2008	596,000	221,000	374,000
2009	603,000	223,000	380,000
2010	611,000	224,000	387,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared March 2000.)

Table 37.—Bachelor's degrees, by sex of recipient, with projections: 1984–85 to 2009–10

Year ending	Total	Men	Women
1985	979,477	482,528	496,949
1986	987,823	485,923	501,900
1987	991,264	480,782	510,482
1988	994,829	477,203	517,626
1989	1,018,755	483,346	535,409
1990	1,051,344	491,696	559,648
1991	1,094,538	504,045	590,493
1992	1,136,553	520,811	615,742
1993	1,165,178	532,881	632,297
1994	1,169,275	532,422	636,853
1995	1,160,134	526,131	634,003
1996	1,164,792	522,454	642,338
1997	1,172,879	520,515	652,364
		Projected	
1998	1,175,000	519,000	656,000
1999	1,178,000	517,000	661,000
2000	1,185,000	517,000	668,000
2001	1,194,000	515,000	678,000
2002	1,210,000	516,000	694,000
2003	1,220,000	522,000	697,000
2004	1,240,000	527,000	712,000
2005	1,253,000	529,000	725,000
2006	1,264,000	533,000	731,000
2007	1,277,000	536,000	741,000
2008	1,290,000	538,000	751,000
2009	1,304,000	542,000	761,000
2010	1,324,000	547,000	776,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared March 2000.)

Table 38.—Master's degrees, by sex of recipient, with projections: 1984–85 to 2009–10

Year ending	Total	Men	Women
1985	286,251	143,390	142,861
1986	288,567	143,508	145,059
1987	289,349	141,269	148,080
1988	299,317	145,163	154,154
1989	310,621	149,354	161,267
1990	324,301	153,653	170,648
1991	337,168	156,482	180,686
1992	352,838	161,842	190,996
1993	369,585	169,258	200,327
1994	387,070	176,085	210,985
1995	397,629	178,598	219,031
1996	406,301	179,081	227,220
1997	419,401	180,947	238,454
		Projected	
1998	427,000	181,000	246,000
1999	405,000	172,000	233,000
2000	398,000	168,000	230,000
2001	396,000	166,000	230,000
2002	396,000	165,000	231,000
2003	399,000	165,000	233,000
2004	402,000	166,000	236,000
2005	406,000	167,000	239,000
2006	411,000	168,000	243,000
2007	417,000	169,000	248,000
2008	425,000	171,000	254,000
2009	432,000	173,000	260,000
2010	439,000	175,000	264,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared March 2000.)

Table 39.—Doctor's degrees, by sex of recipient, with projections: 1984–85 to 2009–10

Year ending	Total	Men	Women
1985	32,943	21,700	11,243
1986	33,653	21,819	11,834
1987	34,041	22,061	11,980
1988	34,870	22,615	12,255
1989	35,720	22,648	13,072
1990	38,371	24,401	13,970
1991	39,294	24,756	14,538
1992	40,659	25,557	15,102
1993	42,132	26,073	16,059
1994	43,185	26,552	16,633
1995	44,446	26,916	17,530
1996	44,652	26,841	17,811
1997	45,876	27,146	18,730
		Projected	
1998	46,600	27,300	19,400
1999	45,900	27,300	18,600
2000	45,200	26,700	18,500
2001	45,000	26,500	18,500
2002	44,900	26,400	18,500
2003	45,000	26,400	18,600
2004	45,100	26,400	18,700
2005	45,300	26,500	18,800
2006	45,600	26,600	19,000
2007	46,000	26,700	19,300
2008	46,400	26,800	19,600
2009	46,800	27,000	19,800
2010	47,100	27,100	20,000

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared March 2000.)

Table 40.—First-professional degrees, by sex of recipient, with projections: 1984–85 to 2009–10

Year ending	Total	Men	Women
1985	75,063	50,455	24,608
1986	73,910	49,261	24,649
1987	71,617	46,523	25,094
1988	70,735	45,484	25,251
1989	70,856	45,046	25,810
1990	70,988	43,961	27,027
1991	71,948	43,846	28,102
1992	74,146	45,071	29,075
1993	75,387	45,153	30,234
1994	75,418	44,707	30,711
1995	75,800	44,853	30,947
1996	76,734	44,748	31,986
1997	78,730	45,564	33,166
		Projected	
1998	79,700	45,800	33,900
1999	80,300	45,600	34,700
2000	78,400	44,700	33,600
2001	76,500	43,200	33,300
2002	75,400	42,100	33,300
2003	75,200	41,600	33,600
2004	75,400	41,500	33,900
2005	75,900	41,500	34,400
2006	76,700	41,800	35,000
2007	77,700	42,100	35,600
2008	78,700	42,300	36,400
2009	80,100	42,700	37,400
2010	81,600	43,200	38,400

NOTE: Some data have been revised from previously published figures. Detail may not sum to totals due to rounding.

SOURCE: U.S. Department of Education, National Center for Education Statistics, "Degrees and Other Formal Awards Conferred" survey; Integrated Postsecondary Education Data System (IPEDS), "Completions" survey; and Earned Degrees Conferred Model. (This table was prepared March 2000.)

Chapter 5

Elementary and Secondary Teachers

Between 1998 and 2010, the number of teachers in elementary and secondary schools is projected to rise, primarily due to the increase in school enrollment during this period. Increases are expected in the numbers of both elementary and secondary teachers. The number of secondary teachers will increase at a faster rate than the number of elementary teachers. The numbers of both public and private teachers are projected to grow. The projections do not take into account increases in the number of teachers and enrollment due to the effects of proposed initiatives to reduce class sizes.

Three alternative projections of the numbers of elementary and secondary teachers were developed to indicate a range of possible outcomes. These alternatives are based on varying economic assumptions about the growth path for one of the key variables in the public school teacher models—education revenue receipts from state sources per capita. Under the middle alternative, education revenue receipts from state sources per capita is projected to increase by 14 percent between 1998 and 2010. The low alternative assumes that education revenue receipts from state sources per capita will increase by 8 percent over the projection period. The high alternative assumes that education revenue receipts from state sources per capita will increase by 20 percent during this period. The other variables in the teacher model are elementary enrollment and secondary enrollment in public schools. Between 1998 and 2010, secondary enrollment is projected to increase by 6 percent, while elementary will decrease around 2 percent (table 2). The enrollment variables are the same for all three alternatives.

Average annual rate of change (in percent)

	1985-98	Projected 1998-2010		
		Low	Middle	High
Total	1.8	0.1	0.3	0.5
Elementary	2.2	-0.1	0.1	0.3
Secondary	1.2	0.6	0.7	0.9
Public	1.9	0.1	0.3	0.5
Private	1.0	0.2	0.4	0.6

Elementary and Secondary School Teachers

The number of teachers in elementary and secondary schools increased from 2.55 million in 1985 to about 3.22 million in 1998, an increase of 26 percent (table 41 and figure 45). Under the middle alternative, the number of teachers is projected to increase to 3.35 million by the year 2010, increasing at an average annual rate of 0.3 percent, for a 4-percent increase over the projection period. Under the low alternative, the number of teachers is projected to increase to 3.27 million by the year 2010, increasing at an average annual rate of 0.1 percent. Under the high alternative, classroom teachers are projected to increase to 3.43 million by the year 2010, increasing at an average annual rate of 0.5 percent.

The number of elementary teachers increased from 1.48 million in 1985 to 1.98 million in 1998, an increase of 33 percent (figure 47). Under the middle alternative, the number of elementary teachers is projected to increase to 2.0 million by 2010, an increase of 1 percent from 1998; this increase represents an average annual rate of 0.1 percent per year. Under the low alternative, the number of elementary teachers is projected to increase to 1.95 million by the year 2010, decreasing at an average annual rate of 0.1 percent. Under the high alternative, elementary teachers are projected to increase to 2.05 million by the year 2010, increasing at an average annual rate of 0.3 percent.

The number of secondary teachers increased from 1.07 million in 1985 to about 1.24 million in 1998, an increase of 16 percent. Under the middle alternative, the number of secondary teachers is projected to increase to 1.35 million by the year 2010, resulting in an increase of 9 percent. This increase will represent an average annual rate of 0.7 percent over the projection period. Under the low alternative, the number of secondary teachers is projected to increase to 1.32 million by the year 2010, increasing at an average annual rate of 0.6 percent. Under the high alternative, secondary teachers are projected to increase to 1.38 million by the year 2010, increasing at an average annual rate of 0.9 percent.

Elementary and Secondary Teachers, by Control of School

The number of teachers in public elementary and secondary schools increased from 2.21 million in 1985 to about 2.83 million in 1998, an increase of 28 percent (table 41 and figure 49). Under the middle alternative, the number of teachers is projected to increase to 2.94 million by the year 2010, increasing at an average annual rate of 0.3 percent, for a 4-percent increase over the projection period. Under the low alternative, the number of classroom teachers is projected to increase to 2.87 million by the year 2010, increasing at an average annual rate of 0.1 percent. Under the high alternative, classroom teachers are projected to increase to 3.01 million by the year 2010, increasing at an average annual rate of 0.5 percent. Projections of elementary and secondary teachers in public schools that have been produced over the past 17 years are nearly as accurate as projections of public high school graduates, but less accurate than projections of public elementary and secondary enrollment that NCES has published over the same period. For more information, see appendix A4, page 135.

The number of elementary and secondary teachers in private schools was an estimated 391,000 in 1998. Under the middle alternative, this number is projected to 412,000 by the year 2010, an increase of 5 percent from 1998. This increase will represent an average annual rate of 0.4 percent. Under the low alternative, the number of private school teachers is projected to increase to 402,000 by the year 2010, increasing at an average annual rate of 0.2 percent. Under the high alternative, private school teachers are projected to increase to 422,000 by the year 2010, increasing at an average annual rate of 0.6 percent.

Pupil/Teacher Ratios

A broad relationship between the number of pupils and teachers can be described by the pupil/teacher ratio. The pupil/teacher ratios were computed based on elementary and secondary enrollment and the number of classroom teachers by organizational level.

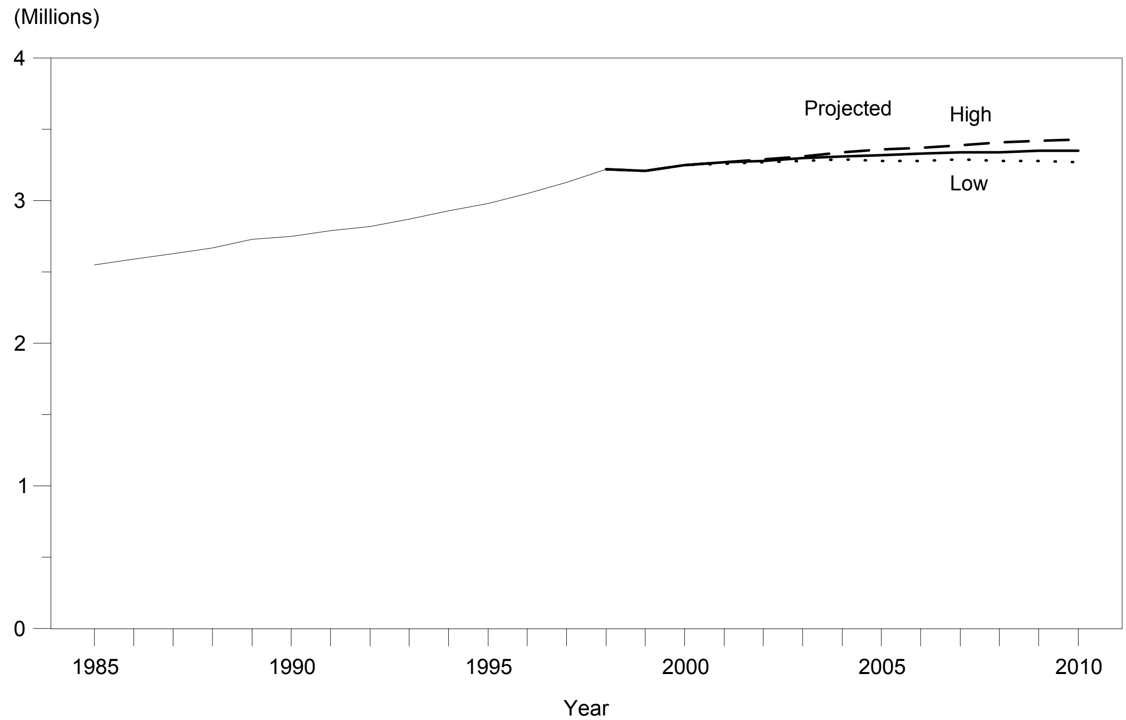
The pupil/teacher ratio in elementary schools decreased from 19.1 in 1985 to 18.4 in 1989. It increased to 18.9 in 1995 followed by a decline to 17.8 in 1998 (table 42 and figure 51). Under the middle alternative, this ratio is projected to decline to 17.3 by the year 2010. Under the low and high alternatives, the pupil/teacher ratio in elementary schools is expected to range between 16.9 and 17.8 by the year 2010. For secondary schools, the pupil/teacher ratio decreased from 15.6 in 1985 to 14.3 in 1989. It increased to about 14.8 in 1992. Then, it declined to 14.0 in 1998. Under the middle alternative, this ratio is projected to decrease to 13.6 by 2010. Under the low and high alternatives, the pupil/teacher ratio in secondary schools is projected to range between 13.3 and 13.9 by the year 2010.

For public elementary schools, under the middle alternative, the pupil/teacher ratio is projected to decrease from 18.0 in 1998 to 17.5 by the year 2010 (figure 52). Under the low and high alternatives, the pupil/teacher ratio in public elementary schools is projected to range between 17.1 and 18.0 by the year 2010. For public secondary schools, under the middle alternative, the pupil/teacher ratio is projected to decrease from 14.2 in 1998 to 13.9 by 2010. Under the low and high alternatives, the pupil/teacher ratio in public secondary schools is expected to range between 13.6 and 14.2 by the year 2010.

For private elementary schools, under the middle alternative, the pupil/teacher ratio is projected to decrease from 16.6 in 1998 to 15.9 by the year 2010. Under the low and high alternatives, the pupil/teacher ratio in private elementary schools is expected to range between 15.5 and 16.3 by the year 2010. For private secondary schools, under the middle alternative, the pupil/teacher ratio is projected to decrease from 11.6 in 1998 to 11.1 by the year 2010. Under the low and high alternatives, the pupil/teacher ratio in private secondary schools is projected to range between 10.9 and 11.4 by the year 2010.

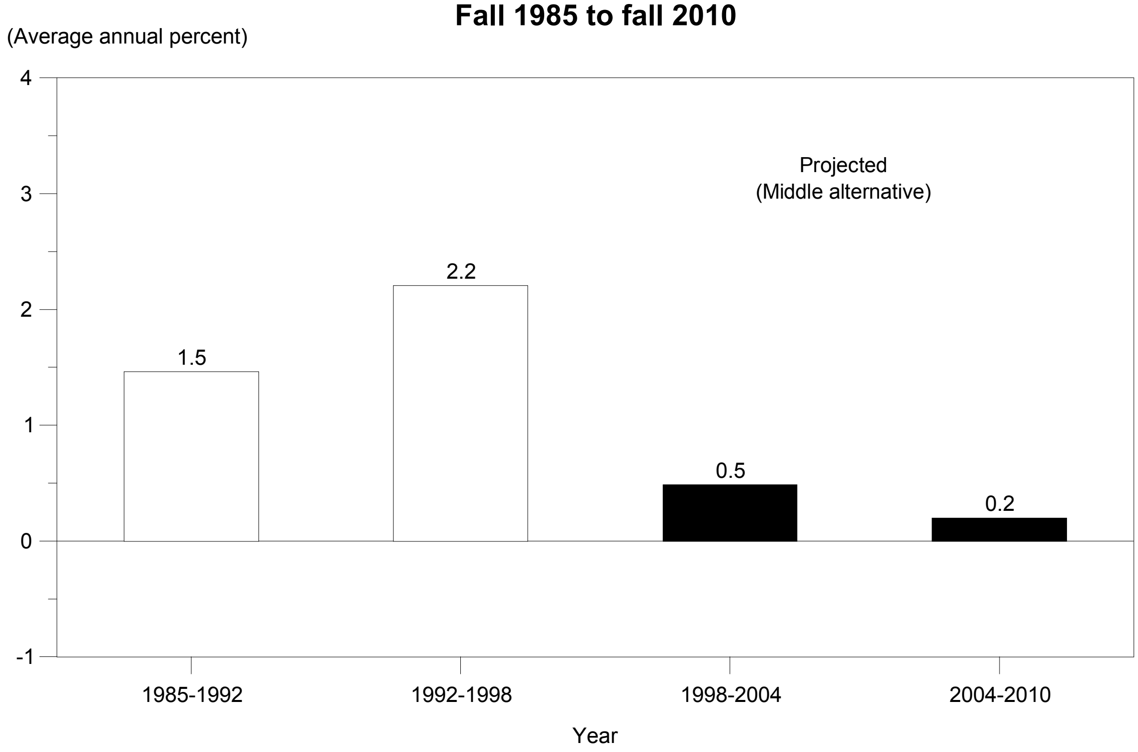
Although private elementary and secondary teachers represented 12 percent of total elementary and secondary teachers in 1998, private school enrollment was 11 percent of total enrollment. This indicates that private schools have more teachers for a given number of students than do public schools; that is, private school pupil/teacher ratios are smaller than public school pupil/teacher ratios.

Figure 45.--Elementary and secondary teachers, with alternative projections: Fall 1985 to fall 2010



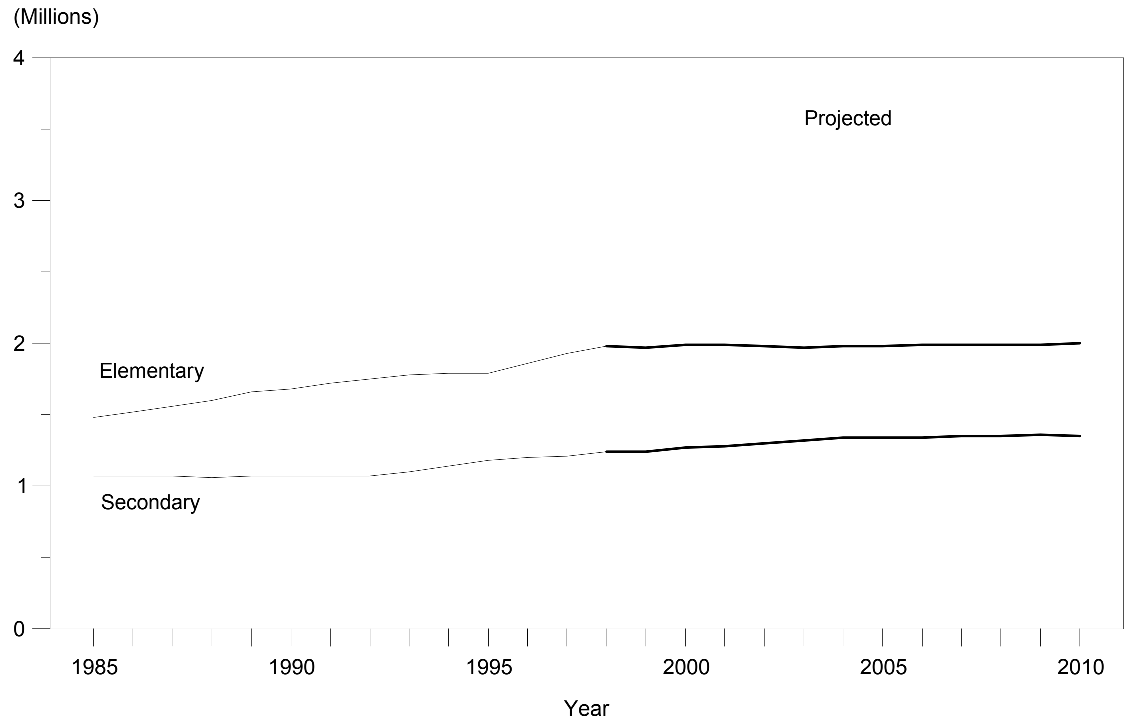
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Figure 46.--Average annual growth rates for teachers: Fall 1985 to fall 2010



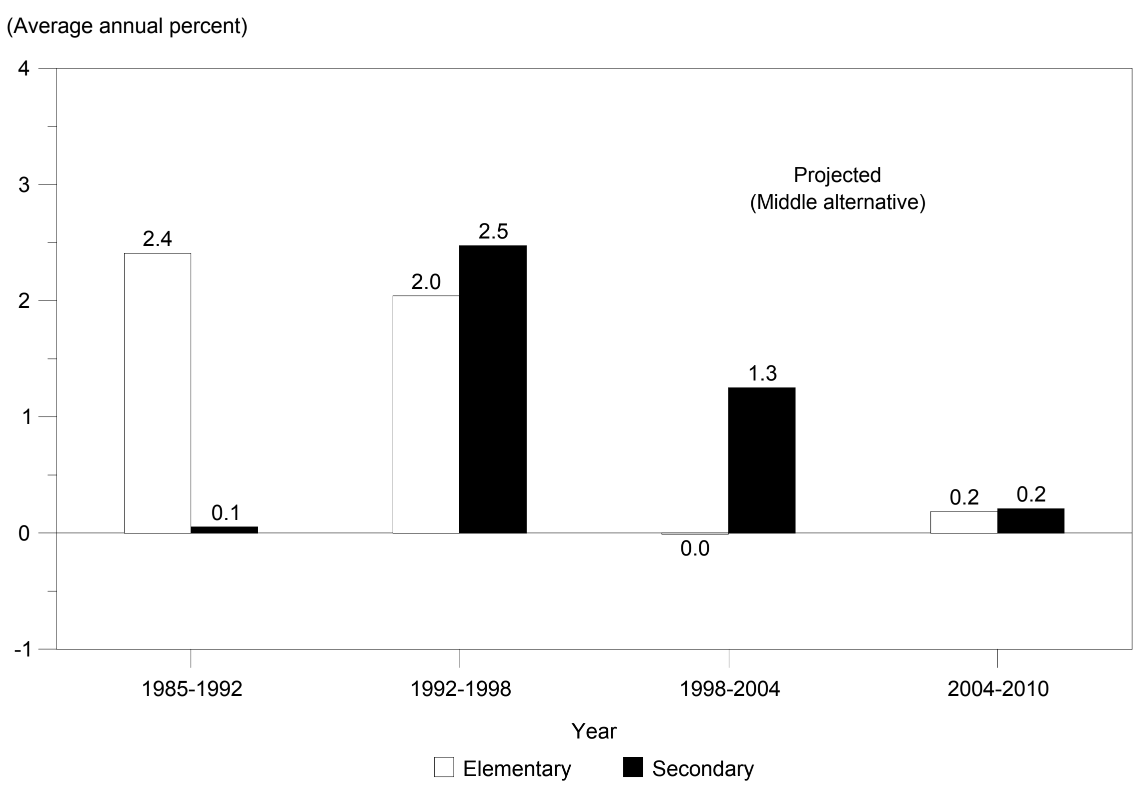
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Figure 47.--Elementary and secondary teachers, by organizational level, with middle alternative projections: Fall 1985 to fall 2010



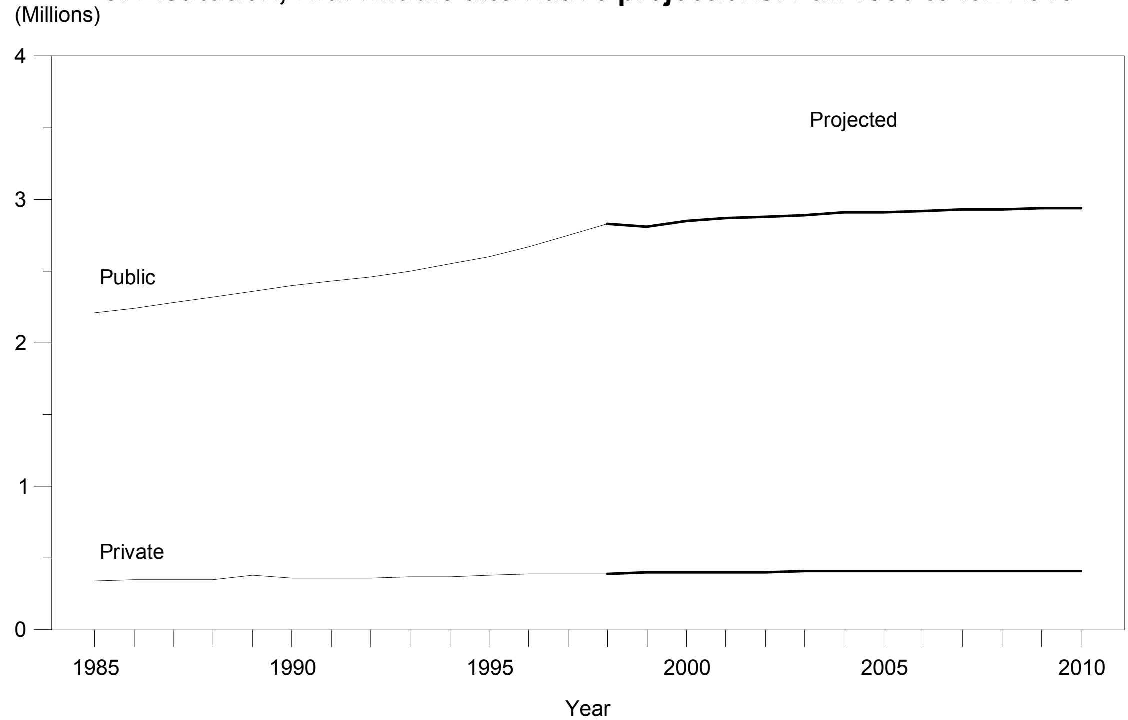
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Figure 48.--Average annual rates of change for teachers, by organizational level: Fall 1985 to fall 2010



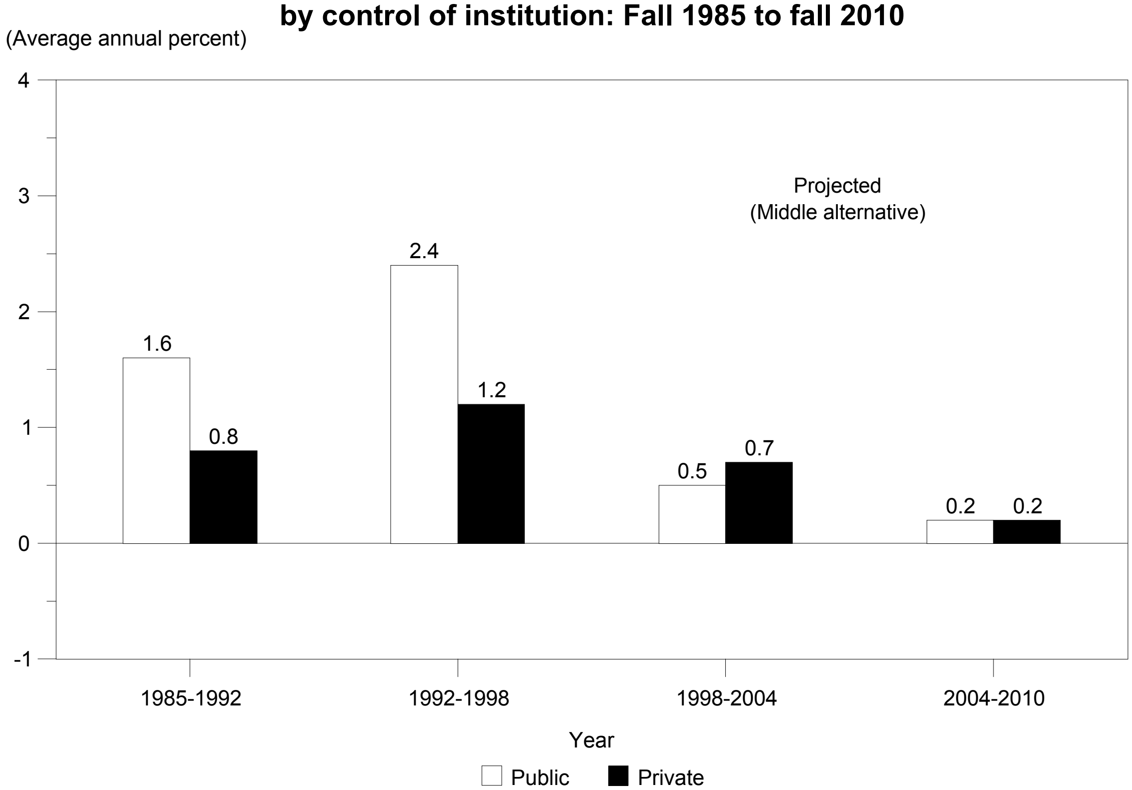
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Figure 49.--Elementary and secondary teachers, by control of institution, with middle alternative projections: Fall 1985 to fall 2010



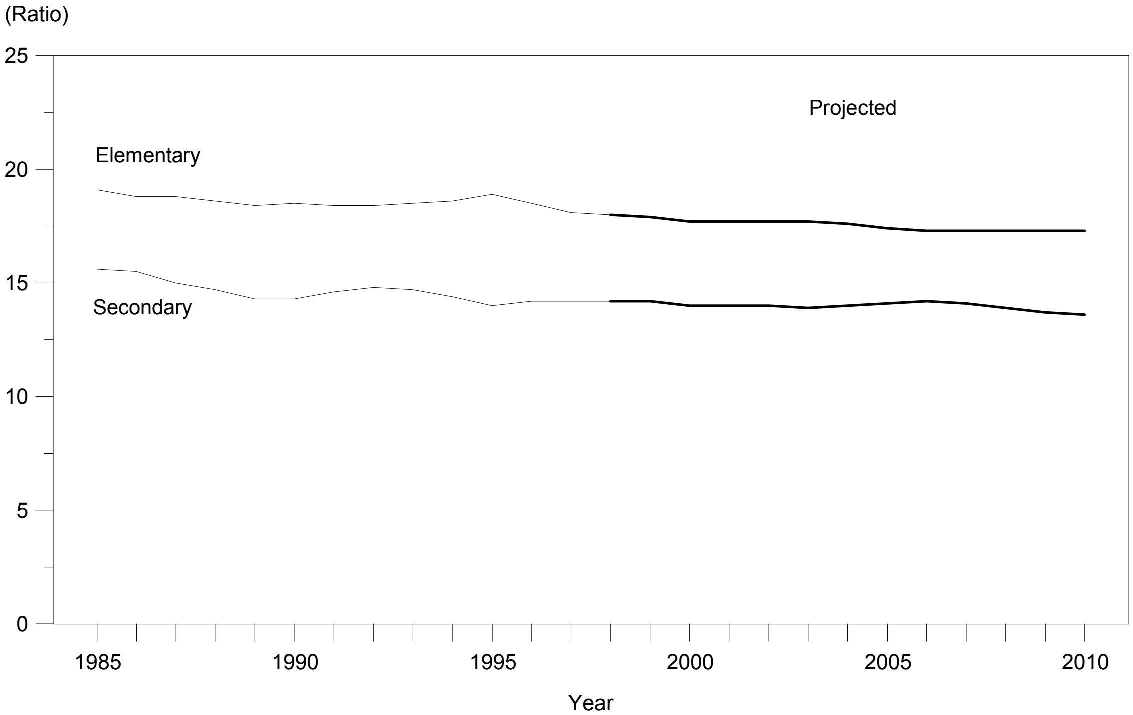
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Figure 50.--Average annual growth rates for teachers, by control of institution: Fall 1985 to fall 2010



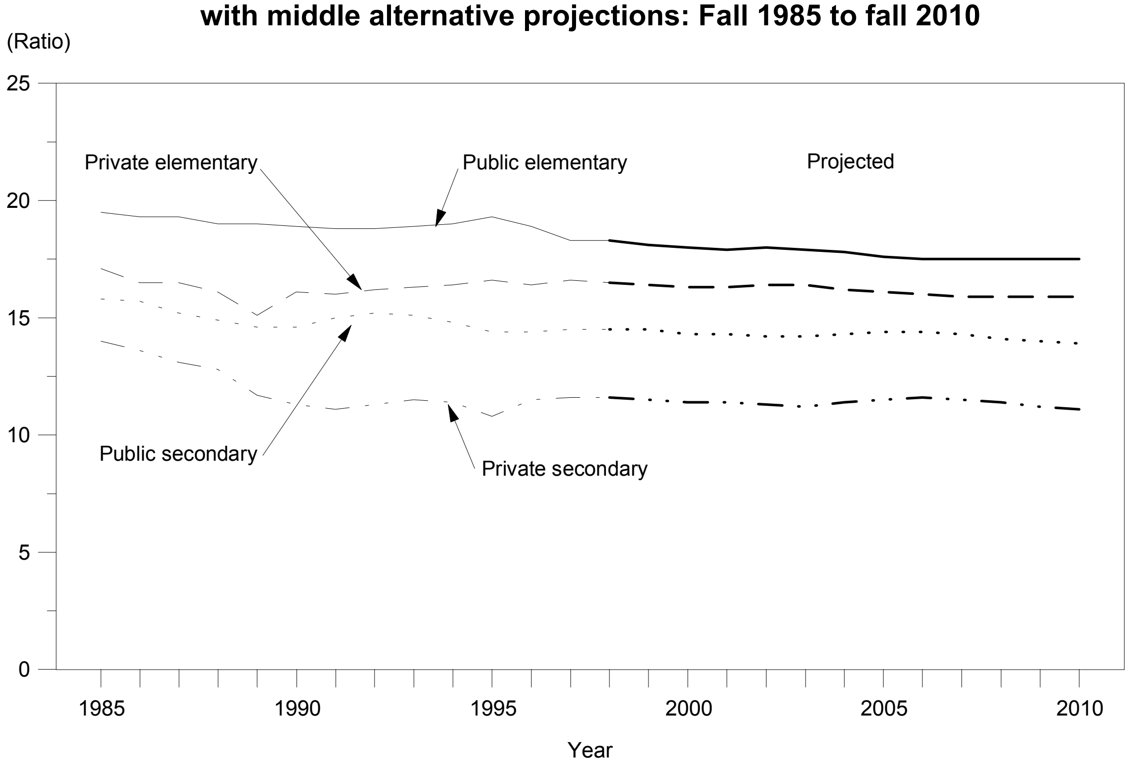
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Figure 51.--Pupil/teacher ratios, by organizational level, with middle alternative projections: Fall 1985 to fall 2010



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Figure 52.--Pupil/teacher ratios, by organizational level and control, with middle alternative projections: Fall 1985 to fall 2010



SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of Data surveys; 1985 Private School Survey; *Private School Universe Survey, 1995-96*; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model.

Table 41.—Elementary and secondary teachers, by control of institution and organizational level, with alternative projections: Fall 1985 to fall 2010

(In thousands)

Year	Total			Public			Private		
	K–12	Elementary	Secondary	K-12	Elementary	Secondary	K-12	Elementary	Secondary
1985 [1]	2,549	1,483	1,066	2,206	1,237	969	343	246	97
1986	2,592	1,521	1,071	2,244	1,271	973	348	250	98
1987 [1]	2,631	1,563	1,068	2,279	1,306	973	352	257	95
1988 [2]	2,668	1,604	1,064	2,323	1,353	970	345	251	94
1989 [2]	2,734	1,662	1,072	2,357	1,387	970	377	275	102
1990 [2]	2,753	1,683	1,070	2,398	1,429	969	355	254	101
1991 [2]	2,787	1,722	1,065	2,432	1,468	964	355	254	101
1992 [2]	2,822	1,752	1,070	2,459	1,492	967	363	260	103
1993 [2]	2,870	1,775	1,095	2,504	1,513	991	366	262	104
1994 [3]	2,926	1,791	1,135	2,552	1,525	1,027	374	266	108
1995 [3]	2,978	1,794	1,184	2,598	1,525	1,073	380	269	111
1996 [3]	3,054	1,856	1,198	2,667	1,582	1,085	387	274	113
1997	3,134	1,928	1,206	2,746	1,653	1,093	388	275	113
1998	3,217	1,978	1,239	2,826	1,701	1,125	391	277	114
Middle alternative projections									
1999	3,206	1,967	1,239	2,809	1,686	1,123	397	281	116
2000	3,252	1,986	1,266	2,850	1,703	1,148	402	283	119
2001	3,269	1,987	1,282	2,865	1,703	1,162	403	283	120
2002	3,281	1,978	1,303	2,877	1,696	1,181	404	282	122
2003	3,296	1,972	1,324	2,891	1,691	1,200	405	281	124
2004	3,312	1,977	1,335	2,905	1,695	1,210	407	282	125
2005	3,322	1,984	1,338	2,914	1,701	1,213	408	283	125
2006	3,328	1,988	1,340	2,919	1,705	1,215	409	284	126
2007	3,337	1,988	1,349	2,927	1,704	1,222	410	284	126
2008	3,343	1,988	1,354	2,932	1,705	1,227	411	284	127
2009	3,348	1,992	1,356	2,937	1,708	1,229	411	284	127
2010	3,352	1,999	1,352	2,940	1,714	1,226	412	285	127
Low alternative projections									
1999	3,206	1,967	1,239	2,809	1,686	1,123	397	281	116
2000	3,251	1,985	1,266	2,850	1,702	1,148	402	283	119
2001	3,263	1,982	1,282	2,861	1,699	1,162	403	283	120
2002	3,267	1,964	1,303	2,864	1,684	1,181	402	280	122
2003	3,279	1,956	1,324	2,876	1,677	1,200	403	279	124
2004	3,290	1,959	1,331	2,886	1,680	1,206	404	279	125
2005	3,284	1,958	1,326	2,881	1,679	1,202	404	279	124
2006	3,283	1,956	1,327	2,880	1,677	1,203	403	279	124
2007	3,288	1,953	1,335	2,884	1,675	1,209	404	279	125
2008	3,280	1,946	1,333	2,877	1,669	1,208	403	278	125
2009	3,275	1,946	1,330	2,873	1,668	1,205	402	278	125
2010	3,271	1,947	1,324	2,869	1,669	1,200	402	278	124
High alternative projections									
1999	3,206	1,967	1,239	2,809	1,686	1,123	397	281	116
2000	3,253	1,987	1,266	2,851	1,703	1,148	402	283	119
2001	3,273	1,991	1,282	2,869	1,707	1,162	404	284	120
2002	3,290	1,987	1,303	2,885	1,704	1,181	406	283	122
2003	3,311	1,986	1,325	2,904	1,703	1,201	407	283	124
2004	3,336	1,997	1,339	2,926	1,712	1,213	410	285	125
2005	3,357	2,012	1,345	2,944	1,725	1,219	413	287	126
2006	3,373	2,021	1,352	2,958	1,733	1,225	415	288	127
2007	3,391	2,026	1,365	2,974	1,737	1,237	417	289	128
2008	3,408	2,031	1,377	2,990	1,742	1,248	419	290	129
2009	3,422	2,039	1,383	3,001	1,748	1,253	420	291	130
2010	3,434	2,051	1,383	3,012	1,758	1,254	422	292	130

[1] Private school numbers are estimated on the basis on past data.

[2] Private school numbers are from the Early Estimates survey.

[3] Private school numbers are projected.

NOTE: The numbers of elementary and secondary teachers reported separately by the National Education Association were prorated to the NCES totals for each year. Some data have been revised from previously published figures. Projections are based on data through 1997. Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of of Data surveys; 1985 Private School Survey; Private School Universe Survey, 1995–96; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model. (This table was prepared May 2000.)

Table 42.—Pupil/teacher ratios in elementary and secondary schools, by control of institution and organizational level, with alternative projections: Fall 1985 to fall 2010

Year	Total		Public		Private	
	Elementary	Secondary	Elementary	Secondary	Elementary	Secondary
1985 [1]	19.1	15.6	19.5	15.8	17.1	14.0
1986	18.8	15.5	19.3	15.7	16.5	13.6
1987 [1]	18.8	15.0	19.3	15.2	16.5	13.1
1988 [2]	18.6	14.7	19.0	14.9	16.1	12.8
1989 [2]	18.4	14.3	19.0	14.6	15.1	11.7
1990 [2]	18.5	14.3	18.9	14.6	16.1	11.3
1991 [2]	18.4	14.6	18.8	15.0	16.0	11.1
1992 [2]	18.4	14.8	18.8	15.2	16.2	11.3
1993 [2]	18.5	14.7	18.9	15.1	16.3	11.5
1994 [3]	18.6	14.4	19.0	14.8	16.4	11.4
1995 [3]	18.9	14.0	19.3	14.4	16.6	10.8
1996 [3]	18.5	14.2	18.9	14.4	16.4	11.5
1997	18.1	14.2	18.3	14.5	16.6	11.6
1998	17.8	14.0	18.0	14.2	16.6	11.6
Middle alternative projections						
1999	17.9	14.2	18.1	14.5	16.4	11.5
2000	17.7	14.0	18.0	14.3	16.3	11.4
2001	17.7	14.0	17.9	14.3	16.3	11.4
2002	17.7	14.0	18.0	14.2	16.4	11.3
2003	17.7	13.9	17.9	14.2	16.4	11.2
2004	17.6	14.0	17.8	14.3	16.2	11.4
2005	17.4	14.1	17.6	14.4	16.1	11.5
2006	17.3	14.2	17.5	14.4	16.0	11.6
2007	17.3	14.1	17.5	14.3	15.9	11.5
2008	17.3	13.9	17.5	14.1	15.9	11.4
2009	17.3	13.7	17.5	14.0	15.9	11.2
2010	17.3	13.6	17.5	13.9	15.9	11.1
Low alternative projections (Based on high alternative projections of teachers)						
1999	17.9	14.2	18.1	14.5	16.4	11.5
2000	17.7	14.0	18.0	14.3	16.3	11.4
2001	17.7	14.0	17.9	14.3	16.2	11.4
2002	17.7	14.0	17.9	14.2	16.3	11.3
2003	17.6	13.9	17.8	14.2	16.2	11.2
2004	17.4	14.0	17.6	14.2	16.0	11.3
2005	17.2	14.1	17.4	14.3	15.8	11.5
2006	17.0	14.1	17.3	14.3	15.7	11.5
2007	17.0	13.9	17.2	14.1	15.6	11.4
2008	16.9	13.6	17.2	13.9	15.6	11.2
2009	16.9	13.4	17.1	13.7	15.5	11.0
2010	16.9	13.3	17.1	13.6	15.5	10.9
High alternative projections (Based on low alternative projections of teachers)						
1999	17.9	14.2	18.1	14.5	16.4	11.5
2000	17.7	14.0	18.0	14.3	16.3	11.4
2001	17.8	14.0	18.0	14.3	16.3	11.4
2002	17.9	14.0	18.1	14.2	16.5	11.3
2003	17.9	13.9	18.1	14.2	16.5	11.2
2004	17.7	14.1	18.0	14.3	16.4	11.4
2005	17.6	14.3	17.9	14.5	16.3	11.6
2006	17.6	14.3	17.8	14.6	16.2	11.7
2007	17.6	14.2	17.8	14.5	16.2	11.6
2008	17.7	14.1	17.9	14.3	16.3	11.5
2009	17.7	14.0	18.0	14.2	16.3	11.4
2010	17.8	13.9	18.0	14.2	16.3	11.4

[1] Private school numbers are estimated on the basis on past data.

[2] Private school numbers are from the Early Estimates survey.

[3] Private school numbers are projected.

NOTE: The pupil/teacher ratios were derived from tables 2 and 41. Some data have been revised from previously published figures. Projections are based on data through 1997.

SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of Public Elementary and Secondary Schools*; Common Core of of Data surveys; 1985 Private School Survey; Private School Universe Survey, 1995–96; *Public and Private Elementary and Secondary Education Statistics*, *Early Estimates*; and Elementary and Secondary Teacher Model. (This table was prepared May 2000.)

Chapter 6

Expenditures of Public Elementary and Secondary Schools

Current expenditures are projected to increase by 38 percent in constant dollars between school years 1997–98 and 2009–10 in the middle set of projections presented in this chapter. Average annual teacher salaries in public elementary and secondary schools in constant dollars are projected to increase 8 percent during that period. (Note that all percent changes presented in this chapter were calculated using unrounded numbers.) These projections are based on assumptions concerning economic growth and assistance by state governments to local governments which are discussed in appendix A5. Other sets of projections, based on alternative economic scenarios, are also discussed. No projections for private schools are presented as there are no regular data collections for total private school expenditures.

There are many factors that may affect future school expenditures and teacher salaries that were not considered in the production of the projections presented in this chapter. These include recent policy initiatives to decrease classroom size and potential changes in the distribution of elementary and secondary teachers as older teachers retire and are replaced by younger teachers. Projections of current expenditures that have been produced over the last 12 years are generally less accurate than the recent NCES projections of public elementary and secondary enrollment, public high school graduates, and classroom teachers; more accurate than the recent NCES projections of higher education enrollment, earned degrees, and teacher salaries; and of similar accuracy to recent NCES projections of expenditures of institutions of higher education. Projections of teacher salaries that have been produced over the last 12 years are generally less accurate than the recent NCES projections of public elementary and secondary enrollment, public high school graduates, classroom teachers, current expenditures in elementary and secondary schools, and expenditures of institutions of higher education, and of similar accuracy to recent NCES projections of higher education enrollment and earned degrees.

Current Expenditures

Past Trends

Current expenditures increased from $196.6 billion in 1984–85 to $290.4 billion in 1997–98 using constant 1998–99 dollars and the Consumer Price Index (table 43 and figure 53). (The 1997–98 school year is the last year for which current expenditures are available.) This was an increase of 48 percent. Current expenditures are estimated to increase to $336 billion by 2000–01, an increase of 71 percent since 1984–85. From 1984–85 to 1997–98, current expenditures per pupil in average daily attendance rose 25 percent to $6,777 (table 43 and figures 54 and 55). Current expenditures per pupil in average daily attendance will increase an estimated 43 percent between 1984–85 and 2000–01. Current expenditures per pupil in fall enrollment (table 44) increased 26 percent from 1984–85 to 1997–98.

Historically, education expenditures have followed a path similar to general economic trends. For much of the period since 1984–85, the economy has been rising. Current expenditures have also been rising during that period. (See figure 56 for a comparison of the growth rates of current expenditures per pupil and one major indicator of the state of the economy, disposable income per capita, and table B6 for the values of disposable income per capita.)

The amount that local governments spend on education is also historically associated with the amount of state education aid to local governments (table B6). There was a rapid rise in state education aid to local governments during the period from 1984–85 to 1997–98. (See figure 56 for a comparison of the growth rates of current expenditures per pupil and revenue receipts from state sources per capita.)

Current expenditures, which had already been increasing, have increased each year since 1984–85. The percent increase has not been constant over that time, however. Most of the largest of the percent increases occurred between 1984-85 and 1989–90. That was the period when disposable income per capita and state education aid per capita were also increasing most rapidly. Also during that period, enrollments, which had been falling since the early 1970s, entered a period of steady increases. Since 1989–90, current expenditures have not been increasing as rapidly. Disposable income per capita and state education aid per capita have been increasing at lower rates than in the mid-1980s as well.

The percentage of total disposable income spent on public elementary and secondary school current expenditures increased slightly from 1984–85 (4.8 percent) to 1997–98 (5.1 percent) (tables 43 and B6). Average daily attendance increased annually every year during that time period.

Current expenditures per pupil in average daily attendance as a percentage of disposable income per capita rose from 31.4 percent in 1984–85 to 32.0 percent in 1997–98.

Alternative Projections

Three sets of projections are presented for current expenditures in this chapter. Each set of projections is based on alternative assumptions concerning the economy. These assumptions together with the methodology used to produce the current expenditure projections are discussed in appendix A5.

The projections in this chapter are presented in both constant 1998–99 dollars and in current dollars. The projections were developed in constant dollars and then placed in current dollars using projections for the Consumer Price Index (CPI) (table B6). Three alternative sets of projections for the CPI were used, one for use with the middle alternative projections, one for use with the low alternative projections, and one for use with the high alternative projections. As the set of projections for the CPI developed for use with the high economic growth projections is rising at the slowest rate, it is sometimes the case that the expenditure projections in current dollars from the high economic growth set of projections are lower than those from the other two alternative sets of projections.

In the middle alternative projections, current expenditures in constant 1998–99 dollars are projected to increase steadily throughout the forecast period, reaching $402 billion in 2009–10. This is an increase of 38 percent over the 1997–98 level, and 19 percent over the estimated level for 2000–01. Current expenditures are projected to increase most rapidly during the first half of the period. This is also the period during which enrollments are expected to increase most rapidly.

Current expenditures per pupil in average daily attendance are projected to increase by 36 percent from $6,777 in 1997–98 to $9,204 in 2009–10 (table 43 and figure 54).

In the middle economic growth projection, total current expenditures as a percentage of total disposable income are projected to decrease to 4.8 percent from 1997–98 to 2009–10. Current expenditures per pupil in average daily attendance as a percentage of disposable income per capita are projected to increase slightly, from 32.0 percent to 32.6 percent during the same period.

In the low economic growth projections, both current expenditures and current expenditures per pupil are projected to increase more slowly than in the middle set of projections. Current expenditures are projected to increase by 29 percent from 1997–98 to 2009–10, reaching $374.0 billion at the end of the forecast period. Current expenditures per pupil in average daily attendance are projected to reach $8,568 by 2009–10, an increase of 26 percent since 1997–98.

In the high economic growth projections, current expenditures are projected to increase by approximately 50 percent over the 1997–98 level to $435.1 billion in 2009–10. Current expenditures per pupil in average daily attendance are projected to increase by 47 percent to $9,965 since 1997–98.

Teacher Salaries

Past Trends

The period from 1984–85 to 1998–99 has been dominated by two different patterns for teacher salaries in constant dollars (table 45 and figures 57 and 58).

Teacher salaries had reached the bottom of a period of steady declines in 1980–81, and then entered a period of steady and relatively rapid growth. From 1984–85 to 1989–90, teacher salaries increased 10.7 percent, from $36,733 to $40,661. During this period, current expenditures and the revenues of state governments were increasing rapidly. (See figure 59 for a comparison of the growth rates for teacher salaries and current expenditures per pupil.)

From 1989–90 to 1998–99, teacher salaries decreased 0.2 percent. During much of that period, the economy, current expenditures, and revenues of state and local governments had not been increasing as rapidly as earlier.

Alternative Projections

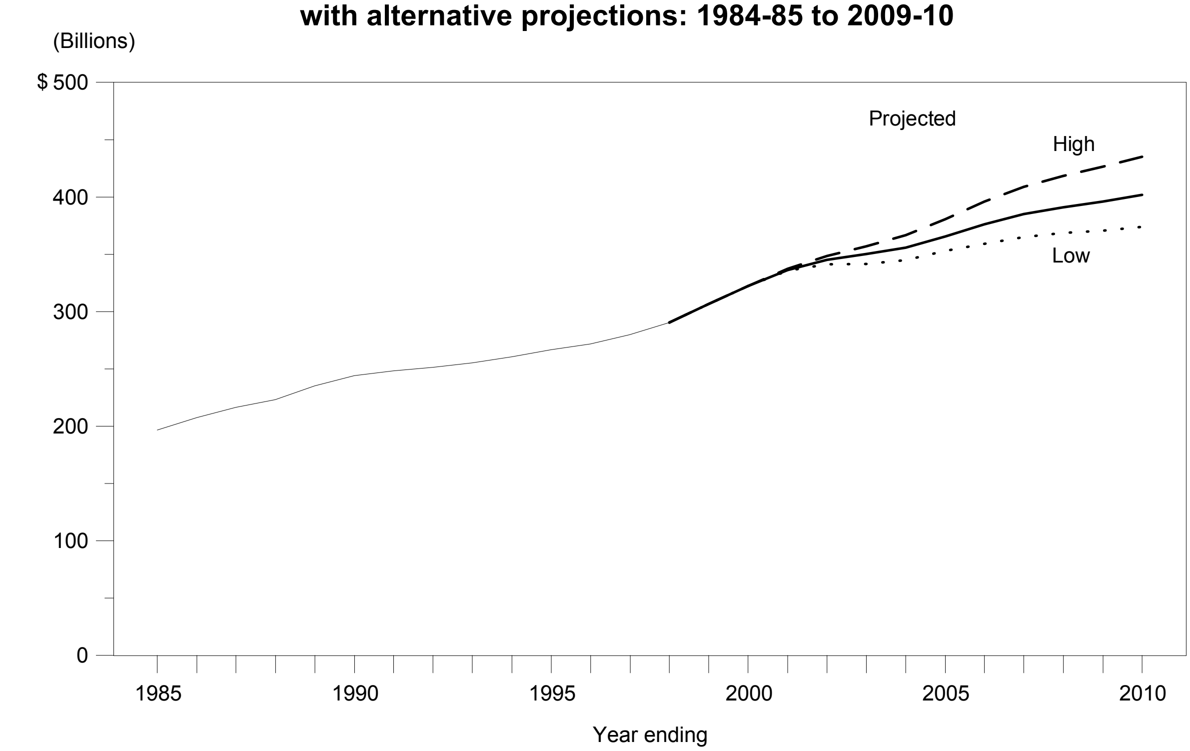
As with current expenditures, three sets of projections are presented for teacher salaries. The methodology and the assumptions used to produce these projections are discussed in appendix A5.

In the middle economic growth projections, the average teacher salary in constant 1998–99 dollars is projected to reach $43,401 in 2009–10 (table 45 and figure 57). This is a 6.9-percent increase from the level estimated for 1998–99.

In the low alternative projections, teacher salaries are projected to increase slightly throughout the projection period. The average salary is projected to increase to $42,070 in 2009–10, an increase of about 3.7 percent from 1998–99. (See figure 58 for a comparison of the growth rates for the alternative sets of projections.)

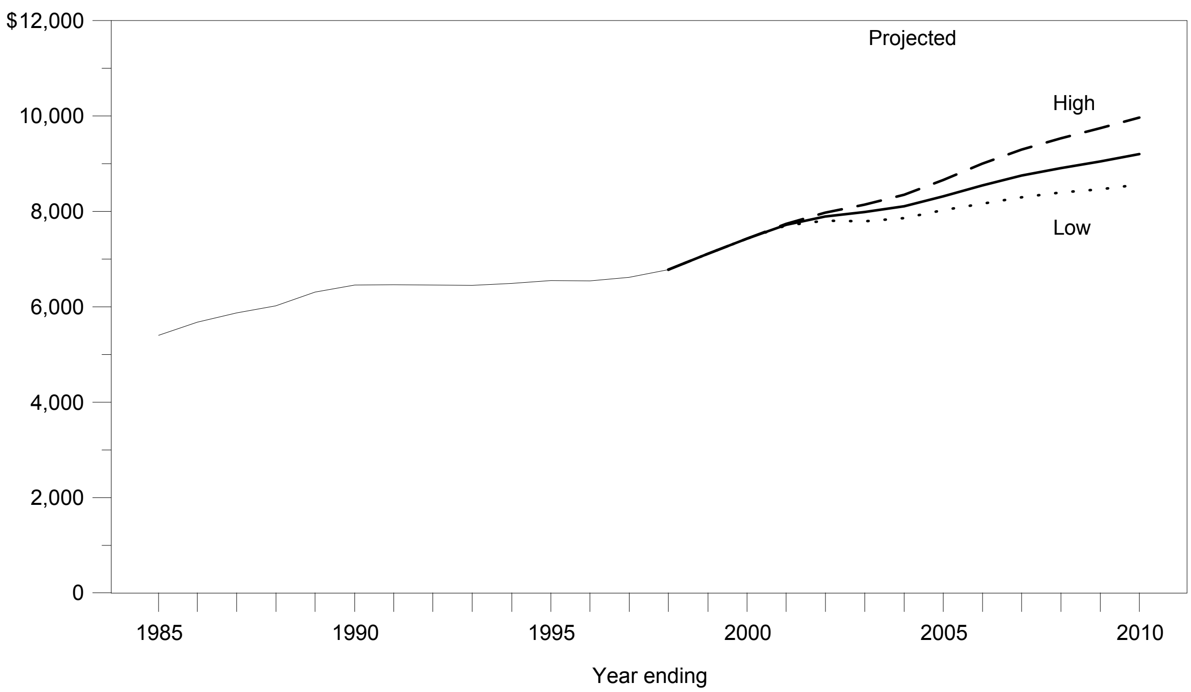
In the high alternative projections, the average teacher salary is projected to reach $44,925 in 2009–10, an increase of about 10.7 percent from 1998–99.

Figure 53.--Current expenditures of public schools (in constant 1998-99 dollars), with alternative projections: 1984-85 to 2009-10



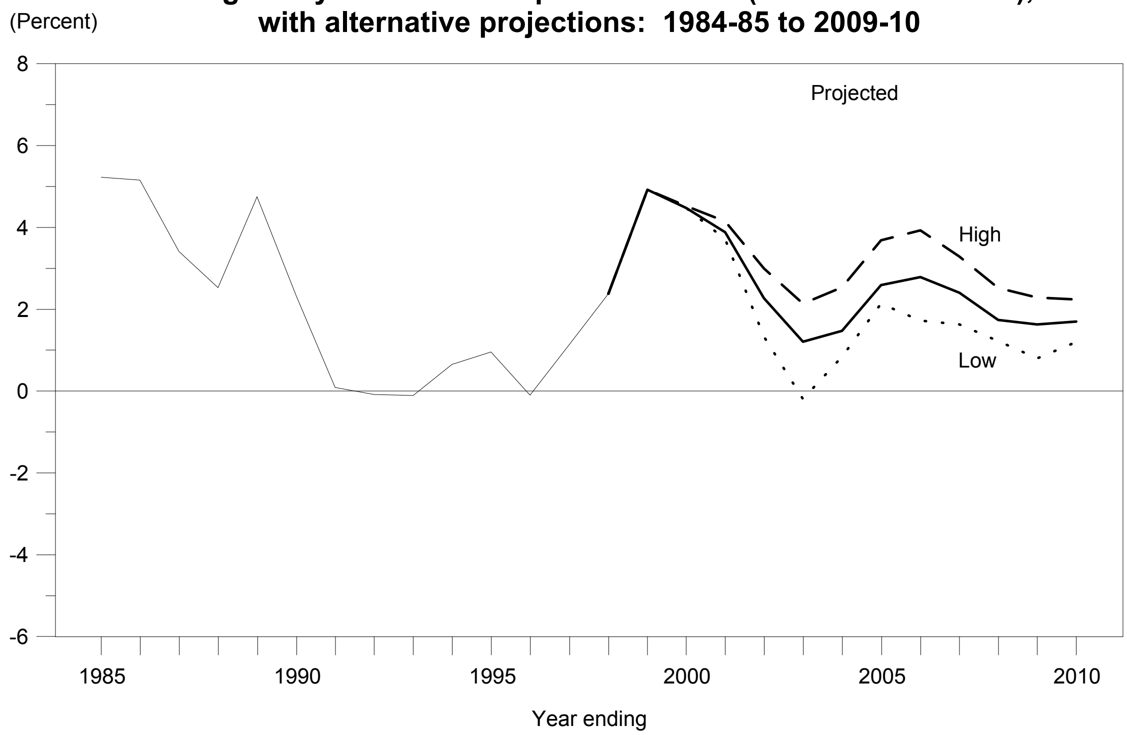
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*; Common Core of Data surveys; *Early Estimates*; Elementary and Secondary Average Daily Attendance Model; Elementary and Secondary School Current Expenditure Model; and National Education Association, annual *Estimates of School Statistics.* (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.)

Figure 54.--Current expenditures per pupil in average daily attendance in public schools (in constant 1998-99 dollars), with alternative projections: 1984-85 to 2009-10



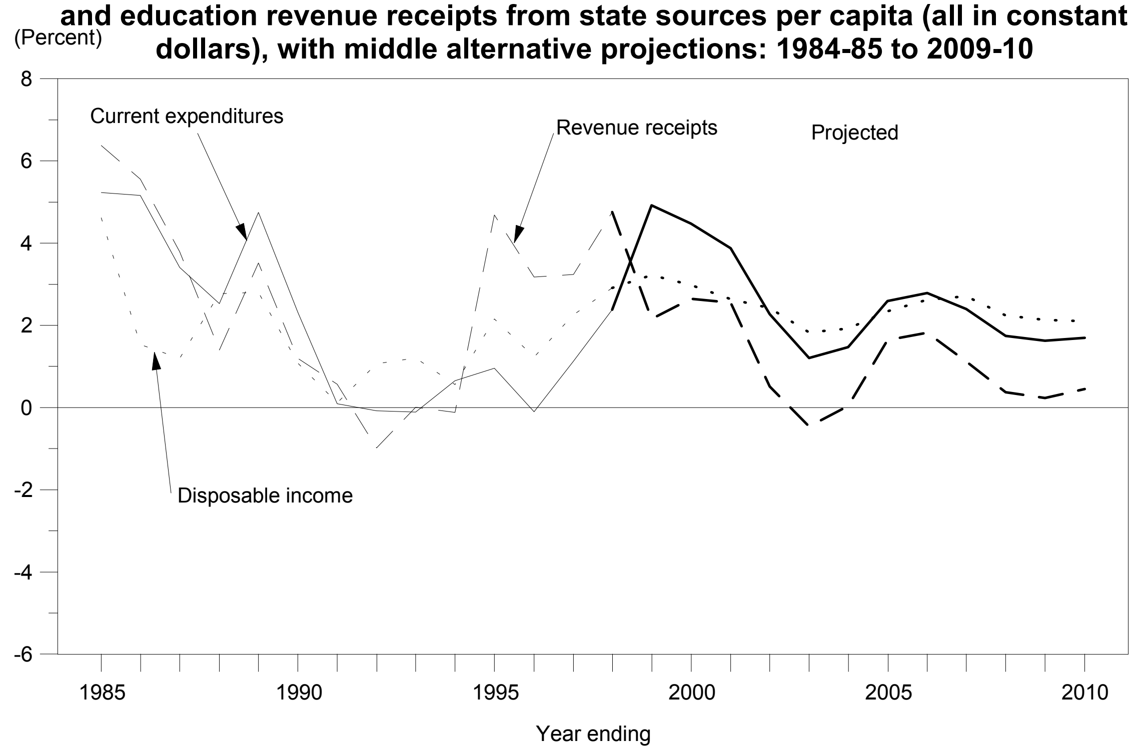
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*; Common Core of Data surveys; *Early Estimates*; Elementary and Secondary Average Daily Attendance Model; Elementary and Secondary School Current Expenditure Model; and National Education Association, annual *Estimates of School Statistics.* (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.)

Figure 55.--Annual percentage change in current expenditures per pupil in average daily attendance in public schools (in constant dollars), with alternative projections: 1984-85 to 2009-10



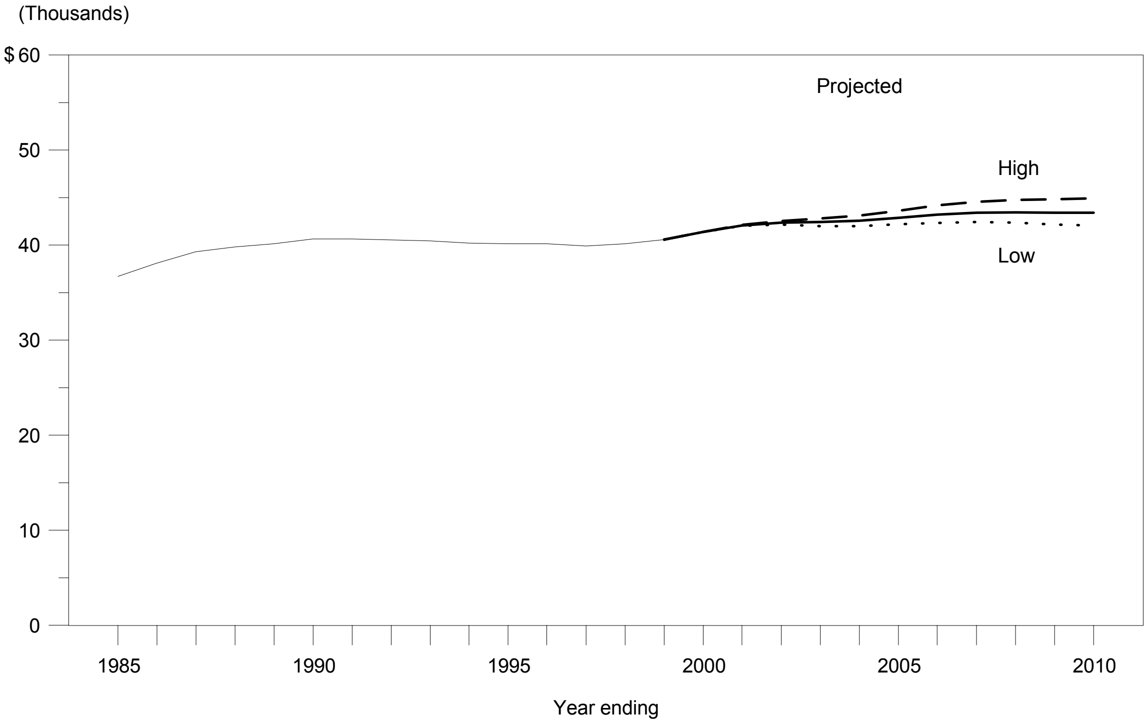
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*; Common Core of Data surveys; *Early Estimates*; Elementary and Secondary Average Daily Attendance Model; Elementary and Secondary School Current Expenditure Model; and National Education Association, annual *Estimates of School Statistics.* (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.)

Figure 56.--Annual percentage change in current expenditures per pupil in average daily attendance in public schools, disposable income per capita, and education revenue receipts from state sources per capita (all in constant dollars), with middle alternative projections: 1984-85 to 2009-10



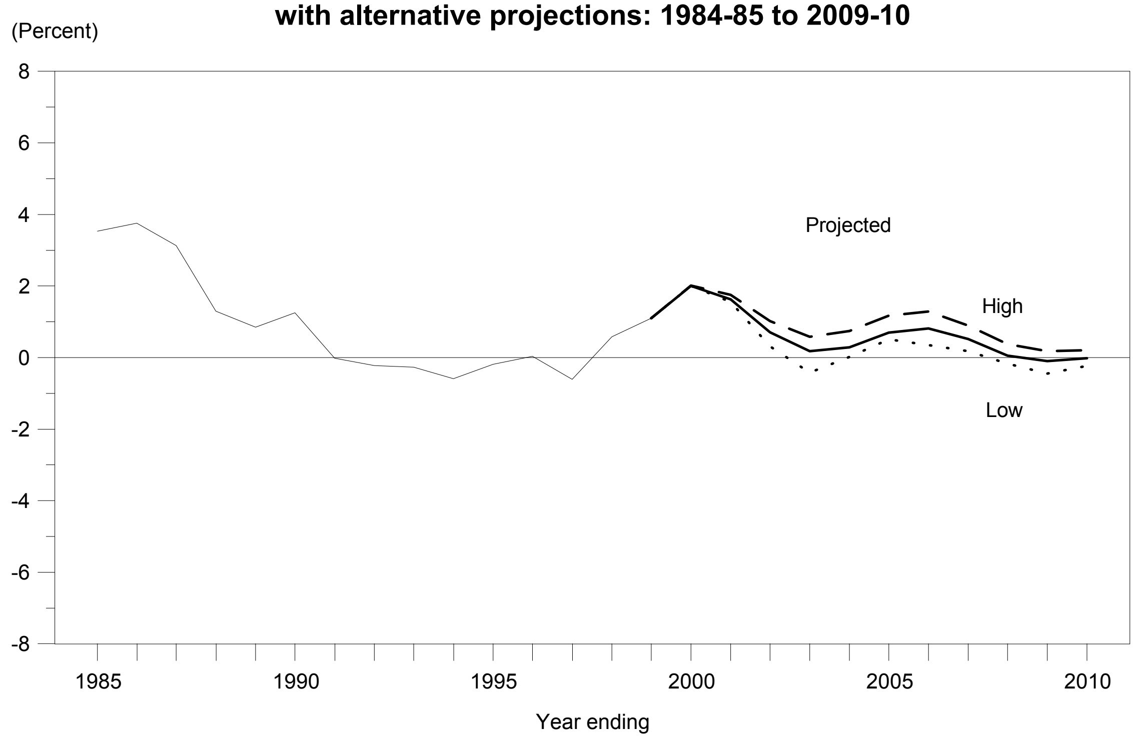
SOURCE: U.S. Department of Education, National Center for Education Statistics, *Statistics of State School Systems*; Common Core of Data surveys; *Early Estimates*; Elementary and Secondary Average Daily Attendance Model; Elementary and Secondary School Current Expenditure Model; Revenue Receipts from State Sources Model; National Education Association, annual *Estimates of School Statistics;*. (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.); and Standard & Poor's DRI, "U.S. Quarterly Model".

Figure 57.--Estimated average annual salaries of teachers in public schools (in constant 1998-99 dollars), with alternative projections: 1984-85 to 2009-10



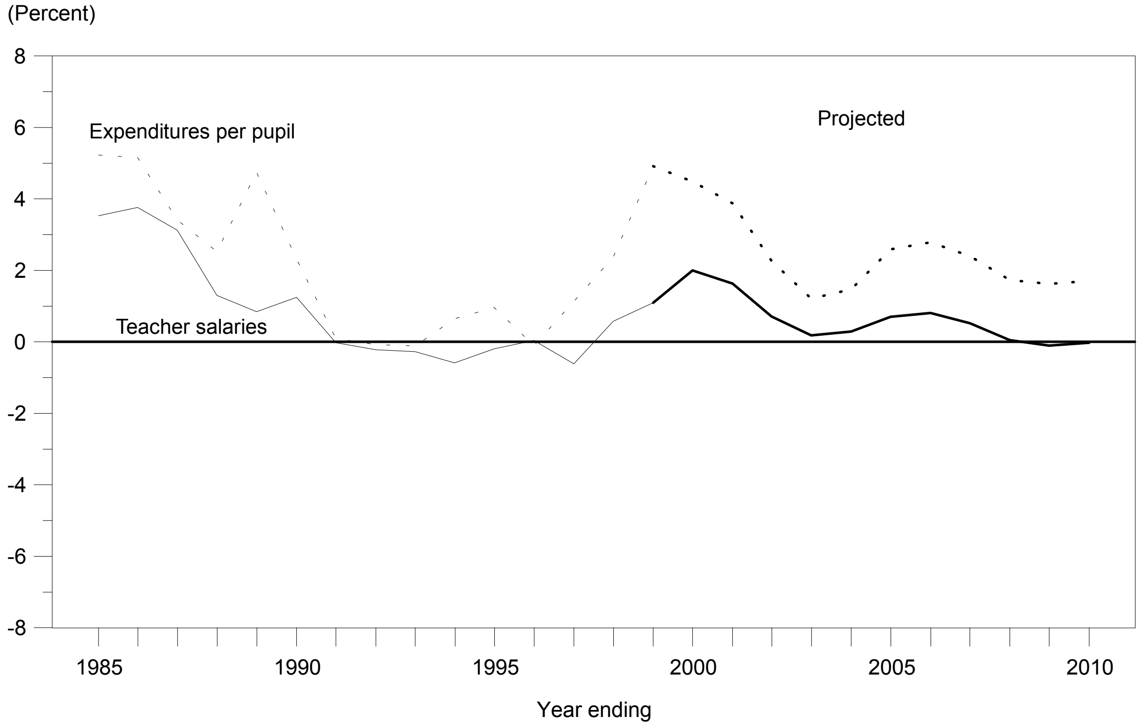
SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Salary Model; and National Education Association, annual *Estimates of School Statistics.* (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.)

Figure 58.--Annual percentage change in estimated average annual salaries of teachers in public schools (in constant dollars), with alternative projections: 1984-85 to 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Salary Model; and National Education Association, annual *Estimates of School Statistics.* (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.)

Figure 59.--Annual percentage change in estimated average annual salaries of teachers and current expenditures per pupil in average daily attendance of public schools (both in constant dollars), with middle alternative projections: 1984-85 to 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics; Common Core of Data surveys; *Early Estimates*; Elementary and Secondary Average Daily Attendance Model; Elementary and Secondary School Current Expenditure Model ; Elementary and Secondary Teacher Salary Model; and National Education Association, annual *Estimates of School Statistics.* (Latest edition 2000.

Table 43.—Current expenditures and current expenditures per pupil in average daily attendance (ADA) in public elementary and secondary schools, with alternative projections: 1984–85 to 2009–10

Year ending	ADA (in thousands)	Current expenditures: Constant 1998–1999 dollars[1] Total (in billions)	Constant 1998–1999 dollars[1] Per pupil in ADA	Current dollars Total (in billions)	Current dollars Per pupil in ADA
1985	36,404	$196.6	$5,402	$126.3	$3,470
1986	36,523	207.5	5,680	137.2	3,756
1987	36,864	216.5	5,874	146.4	3,970
1988	37,051	223.1	6,023	157.1	4,240
1989	37,268	235.1	6,309	173.1	4,645
1990	37,799	244.0	6,455	188.2	4,980
1991	38,427	248.3	6,461	202.0	5,258
1992	38,961	251.5	6,456	211.2	5,421
1993	39,570	255.2	6,448	220.9	5,584
1994	40,146	260.6	6,490	231.5	5,767
1995	40,721	266.8	6,553	243.9	5,989
1996	41,502	271.7	6,546	255.1	6,147
1997	42,262	279.8	6,620	270.2	6,392
1998	42,855	290.4	6,777	285.5	6,662
		Middle alternative projections			
1999	43,127	306.7	7,111	306.7	7,111
2000	43,383	322.3	7,430	330.3	7,613
2001	43,582	336.4	7,718	352.2	8,081
2002	43,720	345.1	7,893	369.8	8,458
2003	43,832	350.2	7,989	385.0	8,783
2004	43,903	355.9	8,106	401.7	9,150
2005	43,962	365.6	8,316	(2)	(2)
2006	43,998	376.1	8,548	(2)	(2)
2007	43,977	385.0	8,754	(2)	(2)
2008	43,896	390.9	8,906	(2)	(2)
2009	43,760	396.0	9,050	(2)	(2)
2010	43,659	401.9	9,204	(2)	(2)
		Low alternative projections			
1999	43,127	306.7	7,111	306.7	7,111
2000	43,383	322.3	7,429	330.3	7,613
2001	43,582	335.8	7,705	352.0	8,076
2002	43,720	341.4	7,808	366.8	8,389
2003	43,832	341.6	7,793	376.8	8,596
2004	43,903	345.0	7,859	390.0	8,883
2005	43,962	352.9	8,027	(2)	(2)
2006	43,998	359.2	8,165	(2)	(2)
2007	43,977	364.9	8,298	(2)	(2)
2008	43,896	368.7	8,399	(2)	(2)
2009	43,760	370.5	8,466	(2)	(2)
2010	43,659	374.0	8,568	(2)	(2)
		High alternative projections			
1999	43,127	306.7	7,111	306.7	7,111
2000	43,383	322.4	7,432	330.4	7,615
2001	43,582	337.4	7,741	352.9	8,097
2002	43,720	348.6	7,973	371.6	8,499
2003	43,832	357.0	8,144	387.2	8,834
2004	43,903	366.6	8,351	403.6	9,193
2005	43,962	380.7	8,659	(2)	(2)
2006	43,998	396.0	9,000	(2)	(2)
2007	43,977	408.8	9,296	(2)	(2)
2008	43,896	418.3	9,530	(2)	(2)
2009	43,760	426.5	9,747	(2)	(2)
2010	43,659	435.1	9,965	(2)	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data survey; Elementary and Secondary Average Daily Attendance Model; Elementary and Secondary School Current Expenditures Model; and National Education Association, *Estimates of School Statistics.* (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.) (This table was prepared May 2000.)

Table 44.—Current expenditures and current expenditures per pupil in fall enrollment in public elementary and secondary schools, with alternative projections: 1984–85 to 2009–10

Year ending	Fall enrollment[1] (in thousands)	Current expenditures: Constant 1998–1999 dollars[2] Total (in billions)	Constant 1998–1999 dollars[2] Per pupil in fall enrollment	Current dollars Total (in billions)	Current dollars Per pupil in fall enrollment
1985	39,208	$196.6	$5,015	$126.3	$3,222
1986	39,422	207.5	5,263	137.2	3,479
1987	39,753	216.5	5,447	146.4	3,682
1988	40,008	223.1	5,578	157.1	3,927
1989	40,188	235.1	5,851	173.1	4,307
1990	40,543	244.0	6,018	188.2	4,643
1991	41,217	248.3	6,024	202.0	4,902
1992	42,047	251.5	5,982	211.2	5,023
1993	42,823	255.2	5,959	220.9	5,160
1994	43,465	260.6	5,995	231.5	5,327
1995	44,111	266.8	6,049	243.9	5,529
1996	44,840	271.7	6,059	255.1	5,689
1997	45,611	279.8	6,134	270.2	5,923
1998	46,127	290.4	6,297	285.5	6,189
Middle alternative projections					
1999	46,535	306.7	6,590	306.7	6,590
2000	46,812	322.3	6,886	330.3	7,055
2001	47,026	336.4	7,153	352.2	7,489
2002	47,176	345.1	7,315	369.8	7,838
2003	47,296	350.2	7,404	385.0	8,140
2004	47,373	355.9	7,512	401.7	8,480
2005	47,436	365.6	7,707	(3)	(3)
2006	47,475	376.1	7,922	(3)	(3)
2007	47,452	385.0	8,112	(3)	(3)
2008	47,365	390.9	8,253	(3)	(3)
2009	47,218	396.0	8,387	(3)	(3)
2010	47,109	401.9	8,530	(3)	(3)
Low alternative projections					
1999	46,535	306.7	6,590	306.7	6,590
2000	46,812	322.3	6,885	330.3	7,055
2001	47,026	335.8	7,141	352.0	7,484
2002	47,176	341.4	7,236	366.8	7,775
2003	47,296	341.6	7,222	376.8	7,966
2004	47,373	345.0	7,283	390.0	8,233
2005	47,436	352.9	7,439	(3)	(3)
2006	47,475	359.2	7,567	(3)	(3)
2007	47,452	364.9	7,690	(3)	(3)
2008	47,365	368.7	7,784	(3)	(3)
2009	47,218	370.5	7,846	(3)	(3)
2010	47,109	374.0	7,940	(3)	(3)
High alternative projections					
1999	46,535	306.7	6,590	306.7	6,590
2000	46,812	322.4	6,888	330.4	7,057
2001	47,026	337.4	7,174	352.9	7,504
2002	47,176	348.6	7,389	371.6	7,877
2003	47,296	357.0	7,547	387.2	8,187
2004	47,373	366.6	7,739	403.6	8,520
2005	47,436	380.7	8,025	(3)	(3)
2006	47,475	396.0	8,340	(3)	(3)
2007	47,452	408.8	8,615	(3)	(3)
2008	47,365	418.3	8,832	(3)	(3)
2009	47,218	426.5	9,033	(3)	(3)
2010	47,109	435.1	9,236	(3)	(3)

[1]Each enrollment number refers to the fall of the school year shown in column 1. For example, the enrollment number listed for 1985 is for fall 1984.

[2]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[3]Projections in current dollars are not shown after 2003 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data survey; National Elementary and Secondary Enrollment Model; Elementary and Secondary School Current Expenditures Model; and National Education Association, *Estimates of School Statistics*. (Latest edition 2000.) (This table was prepared May 2000.)

Table 45.—Estimated average annual salaries of classroom teachers in public elementary and secondary schools, with alternative projections: 1984–85 to 2009–10

Year ending	Constant 1998–1999 dollars[1]	Current dollars
1985	$36,733	$23,600
1986	38,114	25,199
1987	39,307	26,569
1988	39,820	28,034
1989	40,158	29,564
1990	40,661	31,367
1991	40,655	33,084
1992	40,564	34,063
1993	40,454	35,029
1994	40,216	35,737
1995	40,138	36,685
1996	40,152	37,704
1997	39,907	38,536
1998	40,139	39,454
1999	40,582	40,582
	Middle alternative projections	
2000	41,394	42,414
2001	42,069	44,047
2002	42,367	45,400
2003	42,443	46,663
2004	42,565	48,046
2005	42,862	(2)
2006	43,208	(2)
2007	43,430	(2)
2008	43,451	(2)
2009	43,407	(2)
2010	43,401	(2)
	Low alternative projections	
2000	41,392	42,414
2001	42,038	44,061
2002	42,167	45,308
2003	41,989	46,314
2004	41,997	47,471
2005	42,209	(2)
2006	42,355	(2)
2007	42,433	(2)
2008	42,359	(2)
2009	42,168	(2)
2010	42,070	(2)
	High alternative projections	
2000	41,399	42,419
2001	42,123	44,060
2002	42,553	45,361
2003	42,800	46,428
2004	43,118	47,468
2005	43,622	(2)
2006	44,185	(2)
2007	44,579	(2)
2008	44,748	(2)
2009	44,830	(2)
2010	44,925	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Salary Model; and National Education Association, *Estimates of School Statistics*. (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.)

(This table was prepared May 2000.)

Chapter 7

Expenditures of Institutions of Higher Education

The steady growth in higher education expenditures during the 1980s and 1990s is expected to continue throughout the early 2000s and beyond, with total current fund expenditures projected to increase 50 percent from 1995–96 to 2009–10 in constant dollars. (Note that all percent changes presented in this chapter were calculated using unrounded numbers.) Key assumptions behind these projections include: (1) the economy continues to grow at a steady rate; (2) inflation rates remain near current levels; (3) and enrollments increase as in the middle alternative projections presented in chapter 3. Projections based on alternative economic scenarios are discussed below.

Two different ways of categorizing expenditures—current-fund expenditures and educational and general expenditures—are examined. Educational and general expenditures consist of those current-fund expenditures that are for activities that are directly related to the education of students. Expenditures for such activities as auxiliary enterprises, e.g. student dormitories, cafeterias, and bookstores, and university hospitals are excluded from educational and general expenditures but are included in total current-fund expenditures. All expenditure data have been adjusted for inflation. Since the historical trends and the projections of current-fund expenditures and educational and general expenditures have similar patterns, emphasis is given to the broader, more inclusive measure, current-fund expenditures.

Projections are presented for public institutions and for the sum of public and private institutions. (Private institutions include both not-for-profit institutions and for-profit institutions.) Detailed projections are not presented separately for private 4-year and 2-year instiutions. This is because private institutions are in the process of going from one accounting model for reporting to another and there is not enough data to model with the new accounting method. This change will affect revenues and expenditures of private institutions beginning with data for 1996–97. The new model measures economic changes while the old accounting model measured financial flows and the terms current-fund expenditures and educational and general expenditures are not used in the new accounting model for private institutions. In theory cross-walks could be developed to transform data from one accounting model to another. However, this would require the collection of detailed financial data and would be an extremely costly endeavor. Instead, the cross-walks that have been developed to transform the finance data under the old accounting model into the new accounting model and visa versa, use only the data that IPEDS collects. As a result these cross-walks are only approximations to the theoretical cross-walks which would require the collection of much more data to produce precise cross-walks. The precision of the cross-walks developed is unknown because no study has been undertaken to collect the data needed to determine their precision. New accounting standards for public institutions have also been issued. Their adoption by the vast majority of public colleges and universities will be for the first fiscal year after June 15, 2001.

There are many factors that may affect future higher education expenditures that were not considered in the production of the projections presented in this chapter. Projections of expenditures of institutions of higher education that have been produced over the last seven years are generally less accurate than the recent NCES projections of public elementary and secondary enrollment, public high school graduates, and classroom teachers. They are more accurate than the recent NCES projections of higher education enrollment, earned degrees, and teacher salaries. They are of similar accuracy to recent NCES projections of current expenditures in elementary and secondary schools.

Past Trends

Following a well-established trend, current-fund expenditures have increased significantly since 1984–85 (table 46 and figure 60). In real terms, current-fund expenditures increased 45 percent from 1984–85 to 1995–96. (At the time these projections were produced, 1995–96 was the last year for which there were actual data.) The rate of increase in current-fund expenditures during this period has not been consistent, with some years of rapid growth and others of slow growth. Factors that are associated with current-fund expenditures during these periods include: (1) the economy as a whole, and, for public institutions, the economic situation of state and local governments; (2) the inflation rate; and (3) enrollments (table A6.1).

The greatest increases in current-fund expenditures occurred from 1984–85 to 1986–87, when current-fund expenditures rose 12 percent.

The 29 percent increase that occurred from 1986–87 to 1995–96 was partly due to the rapid increase in enrollments that occurred during that time. The number of students as measured by full-time-equivalent enrollment rose 14 percent. From 1984–85 to 1986–87, full-time-equivalent enrollment increased 1 percent.

While current-fund expenditures in both public and private institutions rose, they did not rise at the same rate. From 1984–85 to 1995–96, current-fund expenditures, measured in constant dollars, increased 40 percent in public institutions and 53 percent in private institutions (table 46).

For the period under examination, educational and general expenditures have been an almost constant percentage of current-fund expenditures (increasing from 78 percent in 1984–85 to 79 percent in 1995–96). Hence, the trend for educational and general expenditures is similar to that for current-fund expenditures (table 47 and figure 61). Total educational and general expenditures in constant dollars increased 47 percent from 1984–85 to 1995–96. There was a 40 percent increase in educational and general expenditures in public colleges from 1984–85 to 1995–96 and a 62 percent increase in private colleges.

Public 4-Year Institutions

The trend in constant dollars for current-fund expenditures in public 4-year institutions is very similar to that for all institutions (table 48). From 1984–85 to 1995–96, current-fund expenditures increased 39 percent, with the most rapid growth occurring from 1984–85 to 1986–87. Current-fund expenditures rose 11 percent during that time, while full-time-equivalent enrollment increased by 1 percent.

As with total current-fund expenditures, current-fund expenditures per student rose each year from 1984–85 to 1995–96. Much of the increase occurred from 1984–85 to 1986–87 when current-fund expenditures per student rose 9 percent. From 1986–87 to 1995–96, when FTE enrollment rose 11 percent, current-fund expenditures per student rose 14 percent.

The trend for educational and general expenditures (table 49) is similar to that for current-fund expenditures.

Public 2-Year Institutions

Current-fund expenditures in public 2-year institutions increased 8 percent from 1984–85 to 1986–87 (table 50). A further 33 percent increase in current-fund expenditures occurred from 1986–87 to 1995–96, when FTE enrollments rose 21 percent.

A somewhat different pattern emerges when public 2-year current-fund expenditures are placed in per student terms. Between 1984–85 and 1986–87, current-fund expenditures per student rose 6 percent. From 1986–87 to 1995–96, current-fund expenditures per student rose 10 percent.

The trend for educational and general expenditures (table 51) is similar to that for current-fund expenditures.

Alternative Projections

Projections have been prepared for each of the sectors of higher education. The methodology and assumptions used to produce these projections are discussed in appendix A6.

There are three sets of projections for the public 4-year, public 2-year, and private 4-year sectors. Due to the short time series of consistent data, only one set of projections was produced for the private 2-year sector. The projections of private 4-year institutions and private 2-year institutions are not presented separately.

The projections in this chapter are presented in both constant 1998–99 dollars and current dollars. The projections were developed in constant dollars and then placed in current dollars using projections for the Consumer Price Index (CPI). Three alternative sets of projections for the CPI were used, one for use with the middle alternative projections, one for use with the low alternative projections, and one for use with the high alternative projections. As the set of projections for the CPI developed for use with the high economic growth projections is rising at the slowest rate, it is sometimes the case that the expenditure projections in current dollars from the high economic growth set of projections are lower than those from the other two alternative sets of projections.

All of the alternative projections indicate an increase in current-fund expenditures throughout the next ten years (table 46). In the middle alternative projection, current-fund expenditures are projected to reach $303 billion in 2009–10. This is a 50-percent increase from 1995–96, the last year for which there are actual data. In the low alternative projection, current-fund expenditures are projected to increase to $294 billion. In the high alternative projection, the figure for 2009–10 is $318 billion.

A similar pattern is seen for educational and general expenditures (table 47). In the middle alternative projection, educational and general expenditures are projected to be $241 billion in 2009–10, a 50-percent increase from 1995–96. In the low alternative projection, educational and general expenditures are projected to increase to $233 billion. In the high alternative projection, the figure for 2009–10 is $256 billion.

Public 4-Year Institutions

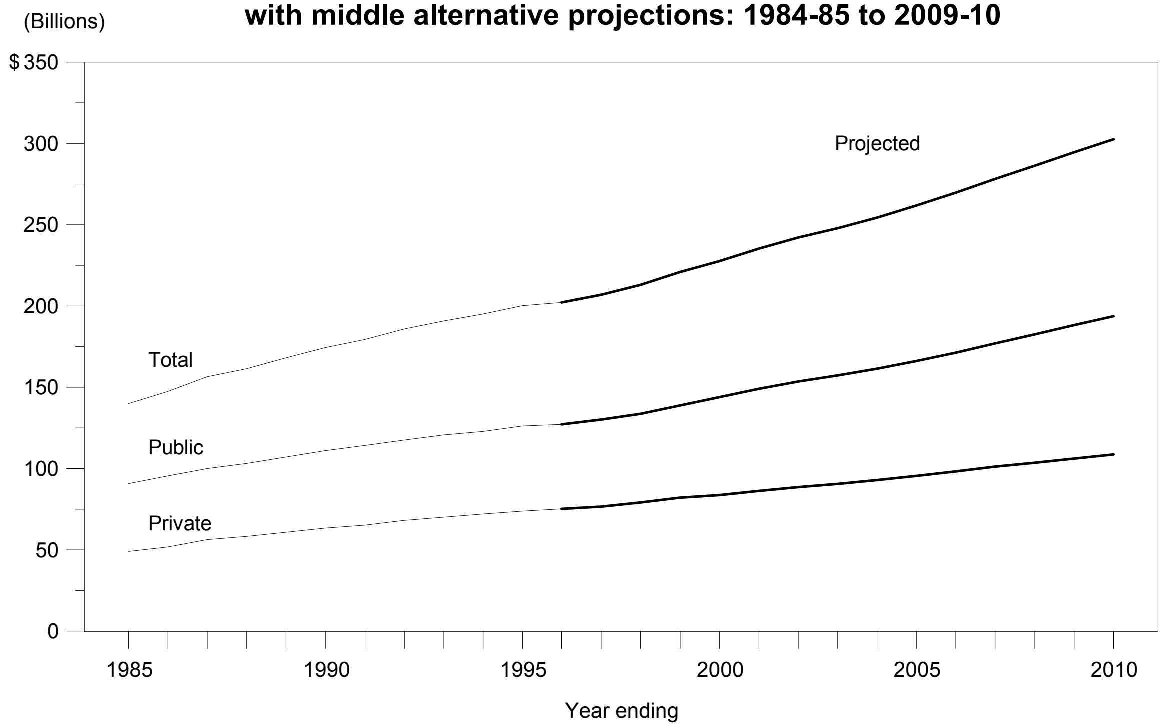
There are only small differences in the trends among the various sectors of higher education. In public 4-year institutions, current-fund expenditures are projected to reach $157 billion in the middle alternative projection in 2009–10 (table 48). This is a 50-percent increase from 1995–96. In the low alternative projection, the value for 2009–10 is $153 billion, and in the high alternative projection, it is $161 billion.

Since full-time-equivalent (FTE) enrollment in public 4-year institutions is projected to increase by 23 percent from 1995–96 to 2009–10, the rate of increase for current-fund expenditures is lower on a per student basis. In the middle alternative projection, a 22 percent increase is projected for the period from 1995–96 to 2009–10, compared with 19 percent for the low alternative projection and 26 percent for the high alternative projection.

Public 2-Year Institutions

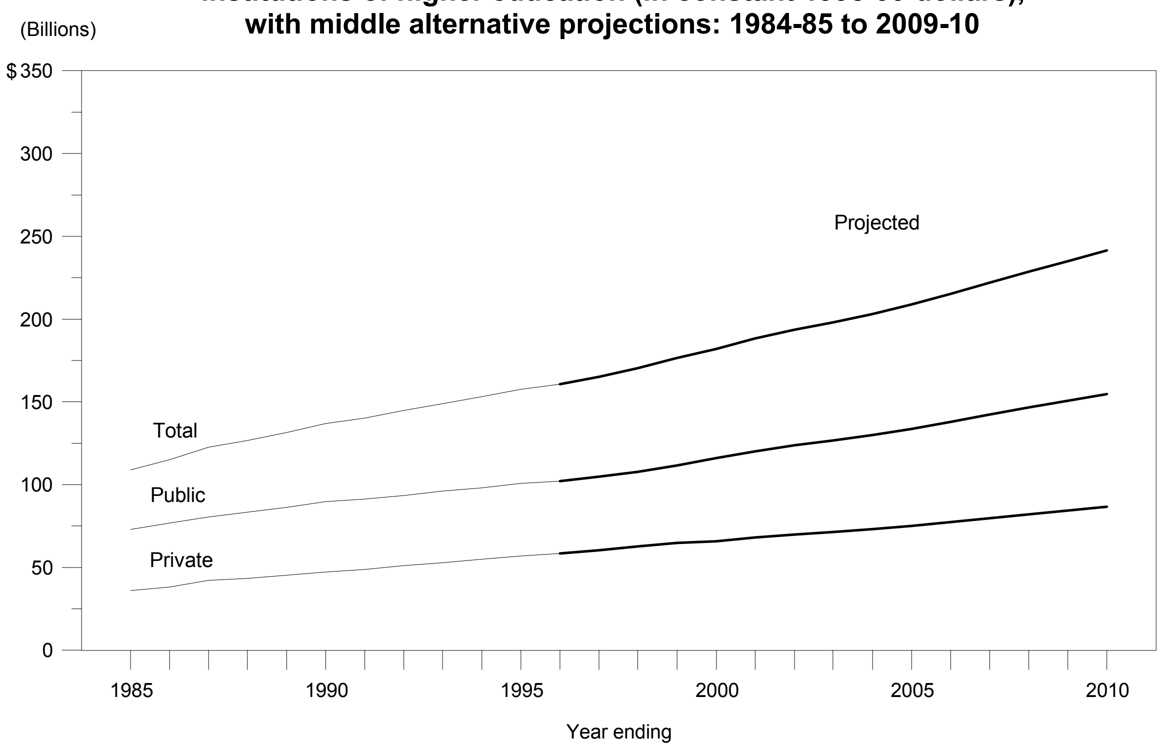
Current-fund expenditures are also projected to increase in public 2-year institutions (table 50). For instance, in the middle alternative projection, current-fund expenditures are projected to reach $37 billion in 2009–10 and expenditures per student are projected to increase to $10,048. When the low alternative projection is used, with its lower growth path for revenues of state and local governments per capita, lower values for current-fund expenditures are found. When the high alternative projection is used, with its higher growth path for revenues of state and local governments per capita, higher values are found.

Figure 60.--Current-fund expenditures of public and private institutions of higher education (in constant 1998-99 dollars), with middle alternative projections: 1984-85 to 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education, and Enrollment in Colleges and Universities surveys; Higher Education Full-Time-Equivalent Enrollment Model; and Higher Education Institutions Expenditure Models.

Figure 61.--Educational and general expenditures of public and private institutions of higher education (in constant 1998-99 dollars), with middle alternative projections: 1984-85 to 2009-10



SOURCE: U.S. Department of Education, National Center for Education Statistics, Financial Statistics of Institutions of Higher Education, and Enrollment in Colleges and Universities surveys; Higher Education Full-Time-Equivalent Enrollment Model; and Higher Education Institutions Expenditure Models.

Table 46.—Current-fund expenditures of public and private institutions of higher education, with alternative projections: 1984–85 to 2009–10

Year ending	Constant 1998–1999 dollars (in billions)[1]			Current dollars (in billions)		
	Total	Public	Private	Total	Public	Private
1985	$140.0	$90.8	$49.2	$90.0	$58.3	$31.6
1986	147.5	95.6	51.9	97.5	63.2	34.3
1987	156.5	100.1	56.4	105.8	67.7	38.1
1988	161.6	103.2	58.4	113.8	72.6	41.1
1989	168.3	107.2	61.0	123.9	78.9	44.9
1990	174.6	111.2	63.4	134.7	85.8	48.9
1991	179.5	114.2	65.3	146.1	93.0	53.1
1992	186.0	117.7	68.3	156.2	98.8	57.3
1993	190.8	120.8	70.1	165.2	104.6	60.7
1994	195.1	123.0	72.1	173.4	109.3	64.0
1995	200.2	126.3	73.9	183.0	115.5	67.5
1996	202.3	127.2	75.2	190.0	119.4	70.6
Middle alternative projections						
1997	207.0	130.3	76.7	199.9	125.8	74.1
1998	213.1	133.8	79.3	209.4	131.5	77.9
1999	221.0	138.8	82.1	221.0	138.8	82.1
2000	227.7	144.0	83.8	233.3	147.5	85.8
2001	235.4	149.1	86.3	246.5	156.1	90.4
2002	242.2	153.6	88.6	259.5	164.6	94.9
2003	248.0	157.3	90.7	272.7	173.0	99.7
2004	254.5	161.5	93.0	287.3	182.3	104.9
2005	261.9	166.3	95.6	(2)	(2)	(2)
2006	269.8	171.4	98.4	(2)	(2)	(2)
2007	278.2	177.0	101.2	(2)	(2)	(2)
2008	286.3	182.6	103.7	(2)	(2)	(2)
2009	294.5	188.3	106.2	(2)	(2)	(2)
2010	302.6	193.8	108.8	(2)	(2)	(2)
Low alternative projections						
1997	207.0	130.3	76.7	199.9	125.8	74.1
1998	213.1	133.8	79.3	209.4	131.5	77.9
1999	221.0	138.8	82.1	221.0	138.8	82.1
2000	227.7	144.0	83.7	233.3	147.5	85.8
2001	235.3	149.1	86.2	246.6	156.3	90.3
2002	241.0	153.1	88.0	259.0	164.5	94.5
2003	245.5	155.7	89.7	270.7	171.8	99.0
2004	251.1	159.2	91.9	283.8	179.9	103.9
2005	257.7	163.3	94.4	(2)	(2)	(2)
2006	264.6	167.5	97.0	(2)	(2)	(2)
2007	272.0	172.4	99.6	(2)	(2)	(2)
2008	279.2	177.2	101.9	(2)	(2)	(2)
2009	286.4	182.1	104.3	(2)	(2)	(2)
2010	293.7	187.0	106.7	(2)	(2)	(2)
High alternative projections						
1997	207.0	130.3	76.7	199.9	125.8	74.1
1998	213.1	133.8	79.3	209.4	131.5	77.9
1999	221.0	138.8	82.1	221.0	138.8	82.1
2000	227.7	144.0	83.8	233.4	147.5	85.8
2001	235.7	149.2	86.6	246.5	156.0	90.5
2002	243.4	154.0	89.4	259.4	164.1	95.3
2003	250.6	158.3	92.3	271.8	171.7	100.1
2004	258.8	163.3	95.5	284.9	179.7	105.2
2005	268.1	169.0	99.1	(2)	(2)	(2)
2006	278.1	175.2	103.0	(2)	(2)	(2)
2007	288.6	181.9	106.7	(2)	(2)	(2)
2008	298.7	188.6	110.0	(2)	(2)	(2)
2009	308.5	195.4	113.1	(2)	(2)	(2)
2010	317.8	201.8	116.0	(2)	(2)	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE : U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education," and "Fall Enrollment in Colleges and Universities" surveys; Higher Education Enrollment Model; and Higher Education Expenditure Models. (This table was prepared March 2000.)

Table 47.—Educational and general expenditures of public and private institutions of higher education, with alternative projections: 1984–85 to 2009–10

Year ending	Constant 1998–1999 dollars (in billions)[1]			Current dollars (in billions)		
	Total	Public	Private	Total	Public	Private
1985	$109.0	$73.0	$36.1	$70.1	$46.9	$23.2
1986	115.1	76.9	38.2	76.1	50.9	25.3
1987	122.7	80.4	42.3	83.0	54.4	28.6
1988	126.6	83.3	43.3	89.2	58.6	30.5
1989	131.5	86.2	45.3	96.8	63.4	33.4
1990	136.9	89.7	47.2	105.6	69.2	36.4
1991	140.3	91.4	48.8	114.1	74.4	39.7
1992	144.8	93.5	51.2	121.6	78.6	43.0
1993	149.0	96.1	52.9	129.0	83.2	45.8
1994	153.1	98.1	55.0	136.0	87.1	48.9
1995	157.7	100.8	56.9	144.2	92.2	52.0
1996	160.7	102.2	58.5	150.9	96.0	55.0
Middle alternative projections						
1997	165.2	104.9	60.3	159.5	101.3	58.2
1998	170.4	107.7	62.8	167.5	105.8	61.7
1999	176.5	111.7	64.8	176.5	111.7	64.8
2000	182.0	116.1	65.9	186.5	119.0	67.5
2001	188.3	120.2	68.1	197.1	125.8	71.3
2002	193.6	123.7	69.9	207.5	132.5	74.9
2003	198.0	126.6	71.4	217.7	139.2	78.5
2004	203.1	129.9	73.1	229.2	146.6	82.6
2005	208.9	133.7	75.1	(2)	(2)	(2)
2006	215.2	137.9	77.4	(2)	(2)	(2)
2007	222.0	142.3	79.7	(2)	(2)	(2)
2008	228.5	146.5	82.0	(2)	(2)	(2)
2009	235.0	150.7	84.3	(2)	(2)	(2)
2010	241.4	154.8	86.6	(2)	(2)	(2)
Low alternative projections						
1997	165.2	104.9	60.3	159.5	101.3	58.2
1998	170.4	107.7	62.8	167.5	105.8	61.7
1999	176.5	111.7	64.8	176.5	111.7	64.8
2000	182.0	116.1	65.9	186.5	119.0	67.5
2001	188.1	120.2	68.0	197.2	125.9	71.2
2002	192.5	123.1	69.3	206.8	132.3	74.5
2003	195.6	125.1	70.5	215.7	138.0	77.7
2004	199.7	127.7	72.0	225.8	144.3	81.4
2005	204.8	130.9	73.9	(2)	(2)	(2)
2006	210.1	134.2	75.9	(2)	(2)	(2)
2007	215.9	137.9	78.0	(2)	(2)	(2)
2008	221.6	141.5	80.1	(2)	(2)	(2)
2009	227.1	144.9	82.2	(2)	(2)	(2)
2010	232.8	148.4	84.3	(2)	(2)	(2)
High alternative projections						
1997	165.2	104.9	60.3	159.5	101.3	58.2
1998	170.4	107.7	62.8	167.5	105.8	61.7
1999	176.5	111.7	64.8	176.5	111.7	64.8
2000	182.0	116.1	65.9	186.5	119.0	67.5
2001	188.5	120.2	68.3	197.2	125.7	71.5
2002	194.7	124.0	70.7	207.6	132.2	75.4
2003	200.4	127.5	72.9	217.4	138.3	79.1
2004	207.1	131.5	75.6	228.0	144.8	83.2
2005	214.8	136.3	78.5	(2)	(2)	(2)
2006	223.1	141.4	81.7	(2)	(2)	(2)
2007	231.9	146.9	85.0	(2)	(2)	(2)
2008	240.2	152.2	88.0	(2)	(2)	(2)
2009	248.3	157.4	90.9	(2)	(2)	(2)
2010	255.9	162.4	93.5	(2)	(2)	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE : U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education," and "Fall Enrollment in Colleges and Universities" surveys; Higher Education Enrollment Model; and Higher Education Expenditure Models. (This table was prepared March 2000.)

Table 48.—Current-fund expenditures and current-fund expenditures per full-time equivalent (FTE) student of public 4-year institutions, with alternative projections: 1984–85 to 2009–10

Year ending	Full-time-equivalent enrollment (in thousands)	Current-fund expenditures: Constant 1998–1999 dollars[1] Total (in billions)	Constant 1998–1999 dollars[1] Per student in FTE	Current dollars Total (in billions)	Current dollars Per student in FTE
1985	4,238	$74.7	$17,635	$48.0	$11,330
1986	4,240	78.9	18,617	52.2	12,309
1987	4,296	82.9	19,285	56.0	13,036
1988	4,396	85.4	19,431	60.1	13,680
1989	4,506	88.8	19,700	65.3	14,503
1990	4,620	91.9	19,885	70.9	15,339
1991	4,740	94.3	19,890	76.7	16,186
1992	4,796	96.9	20,197	81.3	16,960
1993	4,798	99.4	20,716	86.1	17,938
1994	4,766	100.9	21,179	89.7	18,820
1995	4,750	103.8	21,860	94.9	19,980
1996	4,757	104.3	21,916	97.9	20,579
		Middle alternative projections			
1997	4,767	106.8	22,409	103.2	21,639
1998	4,813	109.7	22,800	107.9	22,411
1999	4,898	113.5	23,180	113.5	23,180
2000	4,943	117.3	23,731	120.2	24,316
2001	5,039	121.3	24,065	127.0	25,197
2002	5,122	124.9	24,379	133.8	26,125
2003	5,171	128.0	24,747	140.7	27,208
2004	5,239	131.4	25,076	148.3	28,305
2005	5,306	135.1	25,464	(2)	(2)
2006	5,376	139.1	25,870	(2)	(2)
2007	5,475	143.4	26,195	(2)	(2)
2008	5,593	147.8	26,426	(2)	(2)
2009	5,727	152.3	26,593	(2)	(2)
2010	5,846	156.7	26,800	(2)	(2)
		Low alternative projections			
1997	4,767	106.8	22,409	103.2	21,639
1998	4,813	109.7	22,800	107.9	22,411
1999	4,898	113.5	23,180	113.5	23,180
2000	4,943	117.3	23,731	120.2	24,317
2001	5,039	121.3	24,064	127.1	25,222
2002	5,122	124.5	24,316	133.8	26,127
2003	5,171	127.0	24,571	140.1	27,102
2004	5,239	130.1	24,824	147.0	28,060
2005	5,306	133.4	25,144	(2)	(2)
2006	5,376	136.9	25,467	(2)	(2)
2007	5,475	140.8	25,718	(2)	(2)
2008	5,593	144.8	25,885	(2)	(2)
2009	5,727	148.8	25,986	(2)	(2)
2010	5,846	152.9	26,147	(2)	(2)
		High alternative projections			
1997	4,767	106.8	22,409	103.2	21,639
1998	4,813	109.7	22,800	107.9	22,411
1999	4,898	113.5	23,180	113.5	23,180
2000	4,943	117.3	23,731	120.2	24,316
2001	5,039	121.3	24,069	126.9	25,175
2002	5,122	125.1	24,416	133.3	26,027
2003	5,171	128.5	24,846	139.4	26,953
2004	5,239	132.3	25,262	145.7	27,810
2005	5,306	136.6	25,752	(2)	(2)
2006	5,376	141.2	26,265	(2)	(2)
2007	5,475	146.2	26,698	(2)	(2)
2008	5,593	151.2	27,032	(2)	(2)
2009	5,727	156.3	27,290	(2)	(2)
2010	5,846	161.2	27,573	(2)	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE : U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education," and "Fall Enrollment in Colleges and Universities" surveys; Higher Education Enrollment Model; and Public 4-Year Institutions Current-Fund Expenditure Model. (This table was prepared March 2000.)

Table 49.—Educational and general expenditures and educational and general expenditures per full-time equivalent (FTE) student of public 4-year institutions, with alternative projections: 1984–85 to 2009–10

Year ending	Full-time-equivalent enrollment (in thousands)	Educational and general expenditures			
		Constant 1998–1999 dollars[1]		Current dollars	
		Total (in billions)	Per student in FTE	Total (in billions)	Per student in FTE
1985	4,238	$58.0	$13,697	$37.3	$8,800
1986	4,240	61.4	14,489	40.6	9,580
1987	4,296	64.4	14,985	43.5	10,128
1988	4,396	66.7	15,178	47.0	10,685
1989	4,506	69.0	15,308	50.8	11,270
1990	4,620	71.7	15,514	55.3	11,968
1991	4,740	72.8	15,366	59.3	12,504
1992	4,796	74.2	15,467	62.3	12,988
1993	4,798	76.2	15,876	66.0	13,747
1994	4,766	77.4	16,244	68.8	14,435
1995	4,750	79.8	16,797	72.9	15,352
1996	4,757	80.7	16,971	75.8	15,936
Middle alternative projections					
1997	4,767	82.9	17,380	80.0	16,782
1998	4,813	85.1	17,678	83.6	17,377
1999	4,898	87.9	17,944	87.9	17,944
2000	4,943	90.9	18,382	93.1	18,835
2001	5,039	93.7	18,601	98.1	19,476
2002	5,122	96.4	18,812	103.3	20,158
2003	5,171	98.7	19,089	108.5	20,987
2004	5,239	101.2	19,321	114.3	21,809
2005	5,306	104.0	19,605	(2)	(2)
2006	5,376	107.0	19,902	(2)	(2)
2007	5,475	110.1	20,111	(2)	(2)
2008	5,593	113.1	20,229	(2)	(2)
2009	5,727	116.1	20,282	(2)	(2)
2010	5,846	119.1	20,378	(2)	(2)
Low alternative projections					
1997	4,767	82.9	17,380	80.0	16,782
1998	4,813	85.1	17,678	83.6	17,377
1999	4,898	87.9	17,944	87.9	17,944
2000	4,943	90.9	18,382	93.1	18,836
2001	5,039	93.7	18,600	98.2	19,495
2002	5,122	96.1	18,757	103.2	20,154
2003	5,171	97.9	18,937	108.0	20,888
2004	5,239	100.1	19,104	113.1	21,595
2005	5,306	102.6	19,330	(2)	(2)
2006	5,376	105.1	19,556	(2)	(2)
2007	5,475	107.9	19,701	(2)	(2)
2008	5,593	110.5	19,764	(2)	(2)
2009	5,727	113.2	19,760	(2)	(2)
2010	5,846	115.8	19,817	(2)	(2)
High alternative projections					
1997	4,767	82.9	17,380	80.0	16,782
1998	4,813	85.1	17,678	83.6	17,377
1999	4,898	87.9	17,944	87.9	17,944
2000	4,943	90.9	18,382	93.1	18,835
2001	5,039	93.7	18,604	98.1	19,459
2002	5,122	96.5	18,843	102.9	20,087
2003	5,171	99.1	19,174	107.5	20,800
2004	5,239	102.1	19,480	112.4	21,445
2005	5,306	105.3	19,852	(2)	(2)
2006	5,376	108.8	20,242	(2)	(2)
2007	5,475	112.5	20,544	(2)	(2)
2008	5,593	116.1	20,750	(2)	(2)
2009	5,727	119.6	20,881	(2)	(2)
2010	5,846	123.0	21,043	(2)	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE : U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education," and "Fall Enrollment in Colleges and Universities" surveys; Higher Education Enrollment Model; and Public 4-Year Institutions Educational and General Expenditure Model. (This table was prepared March 2000.)

Table 50.—Current-fund expenditures and current-fund expenditures per full-time equivalent (FTE) student of public 2-year institutions, with alternative projections: 1984–85 to 2009–10

Year ending	Full-time-equivalent enrollment (in thousands)	Current-fund expenditures			
		Constant 1998–1999 dollars[1]		Current dollars	
		Total (in billions)	Per student in FTE	Total (in billions)	Per student in FTE
1985	2,439	$16.0	$6,572	$10.3	$4,222
1986	2,428	16.7	6,858	11.0	4,534
1987	2,482	17.2	6,944	11.7	4,693
1988	2,542	17.8	6,989	12.5	4,920
1989	2,591	18.5	7,128	13.6	5,247
1990	2,752	19.3	7,022	14.9	5,417
1991	2,818	20.0	7,082	16.2	5,763
1992	3,067	20.9	6,800	17.5	5,710
1993	3,114	21.4	6,863	18.5	5,943
1994	3,046	22.1	7,245	19.6	6,438
1995	3,035	22.5	7,416	20.6	6,778
1996	2,994	22.9	7,646	21.5	7,180
		Middle alternative projections			
1997	3,008	23.5	7,798	22.6	7,530
1998	3,026	24.0	7,947	23.6	7,811
1999	3,108	25.3	8,141	25.3	8,141
2000	3,161	26.7	8,440	27.3	8,648
2001	3,221	27.9	8,646	29.2	9,053
2002	3,271	28.8	8,793	30.8	9,423
2003	3,296	29.4	8,915	32.3	9,802
2004	3,334	30.2	9,044	34.0	10,208
2005	3,378	31.2	9,232	(2)	(2)
2006	3,420	32.3	9,454	(2)	(2)
2007	3,478	33.6	9,664	(2)	(2)
2008	3,549	34.8	9,809	(2)	(2)
2009	3,628	36.0	9,921	(2)	(2)
2010	3,694	37.1	10,048	(2)	(2)
		Low alternative projections			
1997	3,008	23.5	7,798	22.6	7,530
1998	3,026	24.0	7,947	23.6	7,811
1999	3,108	25.3	8,141	25.3	8,141
2000	3,161	26.7	8,440	27.3	8,648
2001	3,221	27.8	8,645	29.2	9,061
2002	3,271	28.5	8,715	30.6	9,364
2003	3,296	28.7	8,698	31.6	9,594
2004	3,334	29.1	8,734	32.9	9,872
2005	3,378	29.9	8,839	(2)	(2)
2006	3,420	30.6	8,959	(2)	(2)
2007	3,478	31.6	9,078	(2)	(2)
2008	3,549	32.5	9,145	(2)	(2)
2009	3,628	33.3	9,176	(2)	(2)
2010	3,694	34.1	9,245	(2)	(2)
		High alternative projections			
1997	3,008	23.5	7,798	22.6	7,530
1998	3,026	24.0	7,947	23.6	7,811
1999	3,108	25.3	8,141	25.3	8,141
2000	3,161	26.7	8,440	27.3	8,647
2001	3,221	27.9	8,650	29.1	9,048
2002	3,271	28.9	8,839	30.8	9,422
2003	3,296	29.8	9,037	32.3	9,803
2004	3,334	30.9	9,271	34.0	10,206
2005	3,378	32.4	9,585	(2)	(2)
2006	3,420	34.0	9,940	(2)	(2)
2007	3,478	35.8	10,282	(2)	(2)
2008	3,549	37.5	10,554	(2)	(2)
2009	3,628	39.1	10,777	(2)	(2)
2010	3,694	40.6	10,998	(2)	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE : U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education," and "Fall Enrollment in Colleges and Universities" surveys; Higher Education Enrollment Model; and Public 2-Year Institutions Current-Fund Expenditure Model. (This table was prepared March 2000.)

Table 51.—Educational and general expenditures and educational and general expenditures per full-time equivalent (FTE) student of public 2-year institutions, with alternative projections: 1984–85 to 2009–10

Year ending	Full-time-equivalent enrollment (in thousands)	Educational and general expenditures: Constant 1998–1999 dollars[1] Total (in billions)	Constant 1998–1999 dollars[1] Per student in FTE	Current dollars Total (in billions)	Current dollars Per student in FTE
1985	2,439	$14.9	$6,114	$9.6	$3,928
1986	2,428	15.5	6,390	10.3	4,225
1987	2,482	16.0	6,464	10.8	4,369
1988	2,542	16.6	6,520	11.7	4,590
1989	2,591	17.2	6,640	12.7	4,888
1990	2,752	18.0	6,537	13.9	5,042
1991	2,818	18.6	6,595	15.1	5,367
1992	3,067	19.4	6,316	16.3	5,304
1993	3,114	19.9	6,400	17.3	5,542
1994	3,046	20.6	6,776	18.3	6,021
1995	3,035	21.1	6,943	19.3	6,346
1996	2,994	21.5	7,170	20.2	6,733
Middle alternative projections					
1997	3,008	22.0	7,318	21.3	7,066
1998	3,026	22.6	7,463	22.2	7,336
1999	3,108	23.9	7,674	23.9	7,674
2000	3,161	25.2	7,985	25.9	8,182
2001	3,221	26.4	8,203	27.7	8,589
2002	3,271	27.3	8,356	29.3	8,954
2003	3,296	27.9	8,475	30.7	9,318
2004	3,334	28.7	8,605	32.4	9,713
2005	3,378	29.7	8,799	(2)	(2)
2006	3,420	30.9	9,027	(2)	(2)
2007	3,478	32.2	9,247	(2)	(2)
2008	3,549	33.4	9,404	(2)	(2)
2009	3,628	34.6	9,528	(2)	(2)
2010	3,694	35.7	9,663	(2)	(2)
Low alternative projections					
1997	3,008	22.0	7,318	21.3	7,066
1998	3,026	22.6	7,463	22.2	7,336
1999	3,108	23.9	7,674	23.9	7,674
2000	3,161	25.2	7,985	25.9	8,183
2001	3,221	26.4	8,202	27.7	8,596
2002	3,271	27.1	8,274	29.1	8,890
2003	3,296	27.2	8,248	30.0	9,098
2004	3,334	27.6	8,281	31.2	9,360
2005	3,378	28.3	8,387	(2)	(2)
2006	3,420	29.1	8,510	(2)	(2)
2007	3,478	30.0	8,635	(2)	(2)
2008	3,549	30.9	8,710	(2)	(2)
2009	3,628	31.7	8,748	(2)	(2)
2010	3,694	32.6	8,824	(2)	(2)
High alternative projections					
1997	3,008	22.0	7,318	21.3	7,066
1998	3,026	22.6	7,463	22.2	7,336
1999	3,108	23.9	7,674	23.9	7,674
2000	3,161	25.2	7,985	25.9	8,182
2001	3,221	26.4	8,207	27.7	8,585
2002	3,271	27.5	8,403	29.3	8,957
2003	3,296	28.4	8,602	30.8	9,331
2004	3,334	29.5	8,842	32.5	9,734
2005	3,378	31.0	9,168	(2)	(2)
2006	3,420	32.6	9,535	(2)	(2)
2007	3,478	34.4	9,894	(2)	(2)
2008	3,549	36.1	10,182	(2)	(2)
2009	3,628	37.8	10,422	(2)	(2)
2010	3,694	39.4	10,656	(2)	(2)

[1]Based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

[2]Projections in current dollars are not shown after 2004 due to the uncertain behavior of inflation over the long term.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE : U.S. Department of Education, National Center for Education Statistics, "Financial Statistics of Institutions of Higher Education," and "Fall Enrollment in Colleges and Universities" surveys; Higher Education Enrollment Model; and Public 2-Year Institutions Educational and General Expenditure Model. (This table was prepared March 2000.)

Technical Appendixes

Appendix A
Projection Methodology

The general procedure for *Projections* was to express the variable to be projected as a percent of a ``base" variable. These percents were then projected and applied to projections of the "base" variable. For example, the number of 18-year-old college students was expressed as a percent of the 18-year-old population for each year from 1972 through 1997. This enrollment rate was then projected through the year 2010 and applied to projections of the 18-year-old population from the Bureau of the Census.

Enrollment projections are based primarily on population projections. Projections of classroom teachers, high school graduates, earned degrees conferred, and expenditures are based primarily on enrollment projections.

Exponential smoothing and multiple linear regression are the two major projection techniques used in this publication. Single exponential smoothing is used when the historical data have a basically horizontal pattern. On the other hand, double exponential smoothing is used when the time series is expected to change linearly with time. In general, exponential smoothing places more weight on recent observations than on earlier ones. The weights for observations decrease exponentially as one moves further into the past. As a result, the older data have less influence on these projections. The rate at which the weights of older observations decrease is determined by the smoothing constant selected.

$$P = \alpha X_t + \alpha(1-\alpha)X_{t-1} + \alpha(1-\alpha)^2 X_{t-2}$$
$$+ \alpha(1-\alpha)^3 X_{t-3} + ...$$

Where:

P = projected value

α = smoothing constant ($0 < \alpha < 1$)

X_t = observation for time t

This equation illustrates that the projection is a weighted average based on exponentially decreasing weights. For a high smoothing constant, weights for earlier observations decrease rapidly. For a low smoothing constant, decreases are more moderate. Projections of enrollments and public high school graduates are based on a smoothing constant of α = 0.4.

The farther apart the observations are spaced in time, the more likely it is that there are changes in the underlying social, political, and economic structure. Since the observations are on an annual basis, major shifts in the underlying process are more likely in the time span of just a few observations than if the observations were available on a monthly or weekly basis. As a result, the underlying process tends to be unstable from one observation to the next. Another reason for using high smoothing constants for some time series is that most of the observations are fairly accurate, because most observations are population values rather than sample estimates. Therefore, large shifts tend to indicate actual changes in the process rather than noise in the data.

Multiple linear regression is also used in making projections, primarily in the areas of teachers, earned degrees, and expenditures. This technique is used when it is believed that a strong relationship exists between the variable being projected (the dependent variable) and independent variables. However, this technique is used only when accurate data and reliable projections of the independent variables are available.

The functional form primarily used is the multiplicative model. When used with two independent variables, this model takes the form:

$$Y = aX_1^{b_1} X_2^{b_2}$$

This equation can easily be transformed into the linear form by taking the natural log (ln) of both sides of the equation:

$$\ln Y = \ln(a) + b_1 \ln X_1 + b_2 \ln X_2$$

The multiplicative model has a number of advantages. Research has found that it is a reasonable way to represent human behavior. Constant elasticities are assumed, which means that a 1 percent change in lnX will lead to a given percent change in lnY. This percent change is equal to b_1. And the multiplicative model lends itself easily to “a priori” analysis because the researcher does not have to worry about units of measurement when specifying relationships. In fact, the multiplicative model is considered the standard in economic analyses. For additional information, see *Long-Range Forecasting: From Crystal Ball to Computer* by J. Scott Armstrong (John Wiley and Sons, 1978, pp. 180-181).

Caveats

Because projections are subject to errors from many sources, alternative projections are shown for some statistical series. These alternatives are not statistical confidence intervals, but instead represent outcomes based on alternative economic growth patterns. Alternative projections were developed for higher education enrollment, classroom teachers, and expenditures in public elementary and secondary schools and institutions of higher education.

Assumptions

All projections are based on underlying assumptions, and these assumptions determine projection results to a large extent. It is important that users of projections understand the assumptions to determine the acceptability of projected time series for their purposes. In each section of appendix A, there are descriptions of the primary assumptions upon which the projections of time series are based.

For most projections, low, middle, and high alternatives are shown. These alternatives reveal the level of uncertainty involved in making projections, and they also point out the sensitivity of projections to the assumptions on which they are based.

Many of the projections in this publication are demographically based on Bureau of the Census middle series projections of the population by age, but exclude the 1990 net undercount of 4 to 5 million. These middle series population projections are based on the estimated population as of January 1, 1999 and the estimated base population as of April 1, 1990. The future fertility rate assumption, which determines projections of the number of births, is one key assumption in making population projections.

The middle series population projections assume an ultimate complete cohort fertility rate of 2.12 births per woman by the year 2010. Yearly net migration is assumed to increase from 960,215 in 1999 to 980,425 in 2001 and then decrease to 719,797 by 2010. This assumption plays a major role in determining population projections for the age groups enrolled in nursery school, kindergarten, and elementary grades. The effects of the fertility rate assumption are more pronounced toward the end of the projection period, while the immigration assumptions affect all years.

For enrollments in secondary grades and college, the fertility assumption is of no consequence, since all students enrolled at these levels were already born when the population projections were made. For projections of enrollments in elementary schools, only middle series population projections were considered. Projections of high school graduates are based on projections of the percent of grade 12 enrollment that are high school graduates. Projections of associate, bachelor's, doctor's, and first-professional degrees are based on projections of college-age populations and higher education enrollment, by sex, attendance status and level enrolled by student, and by type of institution. Projections of higher education enrollment are also based on projections of disposable income per capita and unemployment rates. The projections of classroom teachers are based on education revenue receipts from state sources and enrollments. The projections of expenditures of public elementary and secondary schools and institutions of higher education are based on enrollments and projections of disposable income per capita and various revenue measures of state and local governments. Projections of disposable income per capita and unemployment rates were obtained from the company, Standard and Poor's DRI. Therefore, many additional assumptions made in projecting disposable income per capita and unemployment rates apply to projections based on projections of these variables.

A1. Enrollment

National

Enrollment projections were based on projected enrollment rates, by age and sex, which were applied to population projections by age and sex developed by the Bureau of the Census. These enrollment rates were projected by taking into account the most recent trends, as well as the effects of economic conditions and demographic changes on a person's decision to enter college. The enrollment rates were then used in the Education Forecasting Model (EDMOD), which consists of age-specific rates by sex and by enrollment levels (nursery school through college).

Education Forecasting Model

The first stage of EDMOD is an age-specific enrollment model in which enrollment rates are projected and applied to age-specific population projections. This stage, which is used separately for each sex, includes the following categories: (1) elementary grades 1-8, (2) secondary grades 9-12, (3) full-time college enrollment, and (4) part-time college enrollment. Within an enrollment category, where applicable, enrollment rates were projected by individual ages 3 through 24 and for the age groups 25 to 29, 30 to 34, and 35 years and over.

Enrollments by age and age groups from the Bureau of the Census were adjusted to NCES totals to compute enrollment rates for 1972 through 1997. Different economic assumptions were made to produce low, middle, and high alternative projections of enrollment rates to the year 2010.

Elementary Grades 1-8

Projections of elementary enrollment rates were considered for ages 5 through 18. Elementary enrollments are negligible for other ages. Because most elementary enrollment rates have been close to 100 percent from 1972 to 1997, alternative enrollment rate projections were not computed. The only set of enrollment rate projections computed was based on the assumption that rates will remain constant through the year 2010 (table A1.1). The enrollment data by age were prorated to agree with NCES totals. The Bureau of the Census does not revise enrollment estimates by age, but population estimates are revised regularly.

Secondary Grades 9-12

Projections of secondary enrollment rates were considered for ages 12 through 34. Secondary enrollment rates have fluctuated within a narrow range from 1972 to 1997. Therefore, alternative enrollment rate projections were not calculated. The only set of projections computed was based on constant enrollment rates (table A1.2).

College Full-Time and Part-Time Enrollment

Projections of full-time and part-time college enrollments were considered only for ages 16 and over. College enrollment is negligible for earlier ages. Three alternative projections were made using various economic assumptions. Table A1.3 shows enrollment rates for 1997 and low, middle, and high alternative projected enrollment rates for 2005 and 2010. Table A1.4 shows the equations used to project enrollment rates for men by attendance status. Table A1.5 shows the equations used to project enrollment rates for women by attendance status.

Enrollment in Public Elementary and Secondary Schools, by Grade Group and Organizational Level

The second stage of EDMOD projects public enrollment in elementary and secondary schools by grade group and by organizational level. Public enrollments by age were based on enrollment rate projections for nursery and kindergarten, grade 1, elementary ungraded and special, secondary ungraded and special, and postgraduate enrollment. Grade progression rate projections were used for grades 2 through 12. Table A1.6 shows the public school enrollment rates and table A1.7 shows the public grade-progression rates for 1997 and projections for 2005 and 2010. The projected rates in tables A1.6 and A1.7 were used to compute the projections of enrollments in elementary and secondary schools, by grade, shown in table 1.

College Enrollment, by Sex, Attendance Status, and Level Enrolled; and by Type and Control of Institution

The third stage of EDMOD projects enrollments in institutions of higher education, by sex, attendance status, and level enrolled by student and by type and control of institution. For each age group, the percent of total enrollment by age, attendance status, level enrolled, and type of institution was projected. These projections for 2005 and 2010 are shown in tables A1.8 and A1.9, along with actual values for 1997. For all projections, it was assumed that there was no enrollment in 2-year institutions at the postbaccalaureate level (graduate and first-professional).

The projected rates in tables A1.8 and A1.9 were then adjusted to agree with the projected age-specific enrollment rates in the first stage of EDMOD. The adjusted rates were then applied to the projected enrollments by age group, sex, and attendance status from the first stage of EDMOD to obtain projections by age group, sex, attendance status, level enrolled, and type of institution.

For each enrollment category--sex, attendance status, level enrolled, and type of institution--public enrollment was projected as a percent of total enrollment. Projections for 2005 and 2010 are shown in table A1.10, along with actual percents for 1997. The projected rates were then applied to the projected enrollments in each enrollment category to obtain projections by control of institution.

For each category by sex, enrollment level, and type and control of institution, graduate enrollment was projected as a percent of postbaccalaureate enrollment. Actual rates for 1997 and projections for 2005 and 2010 are shown in table A1.11. The projected rates in table A1.11 were then applied to projections of postbaccalaureate enrollment to obtain graduate and first-professional enrollment projections by sex, attendance status, and type and control of institution.

Full-Time-Equivalent Enrollment, by Type and Control of Institution and by Level Enrolled

The fourth stage of EDMOD projects full-time-equivalent enrollment, by type and control of institution and by level enrolled. For each enrollment category by level enrolled and by type and control of institution, the full-time-equivalent of part-time enrollment was projected as a percent of part-time enrollment. Actual percents for 1997 and projections for 2005 and 2010 are shown in table A1.12.

These projected percents were applied to projections of enrollment by level enrolled and by type and control of institution from the third stage of EDMOD. The projections were added to projections of full-time enrollment (from the previous stage) to obtain projections of full-time-equivalent enrollment.

Projection Accuracy

An analysis of projection errors from the past 15 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for lead times of 1, 2, 5, and 10 years out for projections of public school enrollment in grades K-12 were 0.4, 0.6, 1.4, and 3.1 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 0.4 percent of the actual value, on the average. For projections of public school enrollment in grades K-8, the MAPEs for lead times of 1, 2, 5, and 10 years were 0.5, 0.7, 1.5, and 4.5 percent, respectively, while those for projections of public school enrollment in grades 9-12 were 0.7, 0.8, 1.4, and 3.1 percent for the same lead times.

For projections of total enrollment in higher education, an analysis of projection errors based on the past 12 editions of *Projections of Education Statistics* indicates that the MAPEs for lead times of 1, 2, and 5 years were 2.1, 3.3, and 5.6 percent, respectively. For the 1-year-out prediction, this means that one would expect the projection to be within 2.2 percent of the actual value, on the average.

Basic Methodology

The notation and equations that follow describe the basic models used to project public elementary and secondary enrollment.

Public Elementary and Secondary Enrollment

Let:

i = Subscript denoting age

j = Subscript denoting grade

t = Subscript denoting time

K_t = Enrollment at the nursery and kindergarten level

G_{jt} = Enrollment in grade j

G_{1t} = Enrollment in grade 1

E_t = Enrollment in elementary special and ungraded programs

S_t = Enrollment in secondary special and ungraded programs

PG_t = Enrollment in postgraduate programs

P_{it} = Population age i

RK_t = Enrollment rate for nursery and kindergarten

RG_{1t} = Enrollment rate for grade 1

RE_t = Enrollment rate for elementary special and ungraded programs

RS_t = Enrollment rate for secondary special and ungraded programs

RPG_t = Enrollment rate for postgraduate programs

EG_t = Total enrollment in elementary grades (K-8)

SG_t = Total enrollment in secondary grades (9-12)

R_{jt} = Progression rate for grade j: the proportion that enrollment in grade j in year t is of enrollment in grade j - 1 in year t-1.

Then:

$$EG_t = K_t + E_t + \sum_{j=1}^{8} G_{jt}$$

$$SG_t = S_t + PG_t + \sum_{j=9}^{12} G_{gt}$$

Where:

$$K_t = RK_t(P_{5t})$$

$$G_{jt} = R_{jt}\left(G_{j-1,t-1}\right)$$

$$E_t = RE_t\left(\sum_{j=5}^{13} P_{it}\right)$$

$$G_{1t} = RG_{it}(P_{6t})$$

$$S_t = RS_t\left(\sum_{i=14}^{17} P_{it}\right)$$

$$PG_t = RPG_t(P_{18t})$$

Higher Education Enrollment

For institutions of higher education, projections were computed separately by sex and attendance status of student. The notation and equations are:

Let:

i = Subscript denoting age except:

i = 25: ages 25-29

i = 26: ages 30-34

i = 27: ages 35 and over for enrollment (35-44 for population)

t = Subscript denoting year

E_{it} = Enrollment of students age i

P_{it} = Population age i

R_{it} = Enrollment rate for students age i

T_{it} = Total enrollment for particular subset of students: full-time men, full-time women, part-time men, part-time women

Then:

$$T_{it} = \sum_{i=16}^{27} E_{it}$$

Where:

$$E_{it} = R_{it}(P_{it})$$

Methodological Tables

Table A1.13 gives the rates used to calculate projections of enrollments and basic assumptions underlying enrollment projections. Methods used to estimate values for which data are not available appear in table A1.14.

Private School Enrollment

Projections of private school enrollment were derived in the following manner. From 1970 to 1998, the ratio of private school enrollment to public school enrollment was calculated by grade level. These ratios were projected using single exponential smoothing, yielding a constant value over the projection period. This constant was then applied to projections of public school enrollment by grade level to yield projections of private school enrollment. This method assumes that the future pattern in the trend of private school enrollment will be the same as that in public school enrollment. The reader is cautioned that a number of factors could alter the assumption of a constant ratio over the projection period.

State-Level

This edition contains projected trends in elementary and secondary enrollment by grade level in public schools from 1999 to the year 2010. This is the sixth report on state-level projections for public school elementary and secondary education statistics.

Public school enrollment data from the National Center for Education Statistics' Common Core of Data survey for 1970 to 1998 were used to develop these projections. This survey does not collect data on enrollment for private schools. In addition, population estimates for 1970 to 1998 and population projections for 1999 to 2010 from the U.S. Department of Commerce, Bureau of the Census were used to develop the projections.

Table A1.15 describes the number of years, projection methods, and smoothing constants used to project enrollments in public schools. Also included in table A1.15 is the procedure for choosing the different smoothing constants for the time series models.

The grade progression rate method was used to project public elementary and secondary school enrollment by state. The grade progression rate method starts with 6-year-olds entering first grade and then follows their progress through public elementary and secondary schools. The method requires calculating the ratio of the number of children in one year who "survive" the year and enroll in the next grade the following year.

Projections of enrollment in public elementary and secondary schools by state were developed using primarily the grade progression rate method. Kindergarten and first grade enrollments are based on projected enrollment rates of 5- and 6-year-olds. These projected enrollment rates are applied to population projections of 5- and 6-year-olds developed by the Bureau of the Census.

Enrollments in grades 2 through 12 are based on projected grade progression rates in each state. These projected rates are then applied to the current enrollment by grade to yield grade-by-grade projections for future years. Enrollment rates of 5- and 6-year-olds and grade progression rates are projected using single exponential smoothing. Elementary ungraded and special enrollments and secondary ungraded and special enrollments are projected to remain constant at their 1998 levels. To obtain projections of total enrollment, projections of enrollments for the individual grades (kindergarten through 12) and ungraded and special classes were summed.

The grade progression rate method assumes that past trends in factors affecting public school enrollments will continue over the projection period. This assumption implies that all factors influencing enrollments will display future patterns consistent with past patterns. Therefore, this method has limitations when applied to states with unusual changes in migration rates. This method implicitly includes the net effect of such factors as migration, dropouts, deaths, nonpromotion, and transfers to and from private schools.

Adjustment to National Projections

The sum of the projections of state enrollments was adjusted to equal the national projections of public school K-12, K-8, and 9-12 enrollments shown in table 1. For details on the methods used to develop the national projections for this statistic, see the section on national enrollment projections in this appendix.

Table A1.1.—Elementary enrollment rates, by age and sex

Age	Boys		Girls	
	1997	1999–2010	1997	1999–2010
5	6.7	5.8	6.4	5.8
6	82.9	86.6	92.8	91.2
7	108.0	104.8	103.3	103.1
8	105.1	107.0	106.7	107.5
9	105.7	104.0	102.1	102.9
10	103.0	104.5	102.4	102.4
11	102.2	102.9	102.4	106.7
12	101.5	102.4	105.6	107.7
13	101.8	100.8	97.4	95.4
14	33.6	34.6	23.1	24.5
15	4.4	4.4	2.3	2.7
16	0.4	0.7	0.9	0.6
17	0.2	0.2	0.1	0.1
18	0.0	0.0	0.0	0.2

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared March 2000.)

Table A1.2.—Secondary enrollment rates, by age and sex

Age	Boys		Girls	
	1997	1999–2010	1997	1999–2010
12	0.8	0.7	0.7	0.4
13	3.3	3.9	5.3	6.1
14	60.7	61.9	71.5	72.0
15	88.2	88.6	91.7	91.2
16	90.1	91.2	90.3	91.4
17	84.7	82.9	83.8	82.3
18	29.1	29.7	23.3	21.1
19	7.1	6.1	2.6	3.8
20	1.6	2.1	1.2	1.1
21	0.3	0.8	1.0	0.8
22	0.3	0.4	0.7	0.7
23	0.5	0.3	0.7	0.5
24	0.1	0.2	0.2	0.5
25-29	0.3	0.2	0.4	0.4
30-34	0.2	0.2	0.2	0.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared March 2000.)

Table A1.3.—College enrollment rates, by age, sex, and attendance status, with alternative projections

Age, sex, and attendance status	1997	Low alternative		Middle alternative		High alternative	
		2005	2010	2005	2010	2005	2010
Men							
Full-time							
16	0.0	0.2	0.2	0.2	0.2	0.2	0.2
17	2.2	3.7	3.7	3.6	3.8	3.7	3.8
18	27.5	30.7	31.1	30.5	31.2	30.5	31.6
19	31.4	32.8	33.2	32.5	33.3	32.6	33.7
20	30.7	28.1	28.4	27.7	28.4	27.8	28.8
21	25.9	26.2	26.5	25.8	26.5	25.9	26.9
22	19.4	17.9	18.1	17.6	18.0	17.6	18.3
23	13.6	12.8	13.0	12.6	13.0	12.6	13.2
24	10.7	10.0	10.1	9.9	10.1	9.9	10.3
25-29	5.0	4.4	4.5	4.3	4.5	4.3	4.5
30-34	1.5	1.7	1.8	1.7	1.7	1.7	1.8
35-44	0.9	0.8	0.8	0.8	0.8	0.8	0.8
Part-time							
16	0.4	0.2	0.2	0.2	0.2	0.2	0.2
17	0.0	0.8	0.8	0.8	0.9	0.8	0.9
18	6.3	5.3	5.4	5.4	5.5	5.5	5.7
19	7.1	5.9	6.0	6.0	6.1	6.1	6.3
20	8.7	7.3	7.5	7.5	7.7	7.6	7.9
21	7.2	6.8	7.0	7.0	7.2	7.1	7.4
22	10.8	9.5	9.7	9.6	10.0	9.8	10.2
23	7.7	7.1	7.2	7.2	7.4	7.3	7.7
24	6.0	5.6	5.7	5.7	5.9	5.8	6.1
25-29	5.2	6.1	6.3	6.2	6.5	6.3	6.7
30-34	2.7	2.8	2.9	2.8	3.0	2.9	3.1
35-44	3.3	3.9	4.0	3.9	4.1	4.0	4.3
Women							
Full-time							
16	0.1	0.3	0.3	0.3	0.3	0.3	0.3
17	3.7	4.8	5.3	4.8	5.6	5.0	6.1
18	37.6	43.1	44.7	43.1	45.8	44.0	47.8
19	36.7	43.3	44.9	43.4	46.0	44.2	47.9
20	35.2	36.3	37.7	36.2	38.7	37.0	40.6
21	31.6	32.7	34.0	32.6	35.0	33.4	36.8
22	21.5	18.4	19.0	18.4	19.6	18.9	20.9
23	15.5	13.4	13.9	13.4	14.5	13.7	15.5
24	12.1	10.9	11.5	10.9	11.9	11.3	12.8
25-29	4.4	4.4	4.7	4.4	4.8	4.5	5.2
30-34	2.0	2.5	2.6	2.4	2.7	2.5	2.9
35-44	1.8	1.9	2.1	1.9	2.1	2.0	2.3
Part-time							
16	0.1	0.1	0.1	0.1	0.1	0.1	0.1
17	2.0	0.7	0.8	0.8	0.8	0.8	0.8
18	7.3	6.7	6.7	6.8	6.9	6.9	6.9
19	7.1	6.5	6.6	6.6	6.7	6.7	6.7
20	8.9	8.2	8.3	8.4	8.5	8.4	8.6
21	7.9	7.5	7.6	7.6	7.8	7.7	7.9
22	11.4	11.0	11.3	11.2	11.6	11.4	11.9
23	8.2	8.5	8.7	8.7	9.0	8.8	9.3
24	6.3	7.1	7.3	7.2	7.5	7.4	7.8
25-29	6.4	7.6	7.9	7.8	8.2	7.9	8.5
30-34	4.3	5.1	5.6	5.3	5.8	5.4	6.0
35-44	6.5	8.0	8.3	8.2	8.6	8.4	9.0

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.
(This table was prepared March 2000.)

Table A1.4.—Equations for full-time and part-time college enrollment rates of men

Independent variable	Coefficient	Standard error	T-statistic	R^2	F-statistic
Full-time					
Constant	-2.87	0.12	-24.2	0.99	829.6
Dummy18	2.54	0.09	27.7		
Dummy19	2.65	0.09	29.6		
Dummy20	2.47	0.10	24.5		
Dummy21	2.37	0.10	23.5		
Dummy22	1.90	0.13	14.3		
Dummy23	1.47	0.13	11.6		
Dummy24	1.17	0.14	8.2		
Dummy25-29	0.35	0.14	2.5		
Dummy30-34	-0.66	0.10	-6.3		
Dummy35-44	-1.40	0.16	-8.7		
LNURM	0.06	0.04	1.8		
LNCPIMA	0.26	0.03	9.3		
Rho17	0.30	0.21	1.4		
Rho18	0.54	0.18	3.0		
Rho19	0.23	0.20	1.1		
Rho20	0.20	0.24	0.8		
Rho21	0.31	0.20	1.6		
Rho22	0.64	0.17	3.8		
Rho23	0.53	0.19	2.8		
Rho24	0.72	0.15	4.9		
Rho25-29	0.66	0.13	5.0		
Rho30-34	0.37	0.13	2.8		
Rho35-44	0.70	0.12	6.1		
Part-time					
Constant	-4.32	0.07	-58.2	0.94	160
Dummy18	2.28	0.07	34.7		
Dummy19	2.43	0.10	23.9		
Dummy20	2.60	0.05	48.7		
Dummy21	2.49	0.06	38.4		
Dummy22	2.74	0.07	38.0		
Dummy23	2.35	0.06	41.6		
Dummy24	2.06	0.06	36.9		
Dummy25-29	2.10	0.11	19.9		
Dummy30-34	1.24	0.29	4.3		
Dummy35-44	1.58	0.06	24.9		
LNCPIMA	0.40	0.03	12.0		
Rho17	-0.64	0.17	-3.8		
Rho18	0.15	0.22	0.7		
Rho19	0.65	0.18	3.7		
Rho20	0.32	0.23	1.4		
Rho21	0.55	0.19	3.0		
Rho22	0.18	0.23	0.8		
Rho23	-0.10	0.21	-0.5		
Rho24	0.21	0.21	1.0		
Rho25-29	0.69	0.13	5.4		
Rho30-34	0.93	0.11	8.1		
Rho35-44	0.62	0.12	5.3		

R^2 = Coefficient of determination.

F-Statistic = Obtained statistic for the F value.

Where:

Dummy(age) = 1 for each age and 0 otherwise.

Rho(age) = Autocorrelation coefficient for each age.

LNURM = Log unemployment rate.

LNCPIMA = Log of four-period weighted average of per capita real disposable income.

NOTE: The regression method used to estimate the full-time and part-time equations was pooled least squares with first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 1997. The number of observations is 253. For additional information, see *The Modern Forecaster* by Hans Levenbach and James P. Cleary (Van Nostrand Reinhold Company Inc., New York, 1984, pp. 354-373).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.

(This table was prepared March 2000.)

Table A1.5.—Equations for full-time and part-time college enrollment rates of women

Independent variable	Coefficient	Standard error	T-statistic	R^2	F-statistic
Full-time					
Constant	-1.60	0.41	-3.9	0.99	882.1
Dummy18	2.77	0.39	7.1		
Dummy19	2.78	0.37	7.4		
Dummy20	2.55	0.38	6.7		
Dummy21	2.37	0.38	6.3		
Dummy22	1.60	0.38	4.2		
Dummy23	1.20	0.38	3.2		
Dummy24	0.95	0.37	2.6		
Dummy25-29	0.06	0.41	0.2		
Dummy30-34	-0.57	0.39	-1.5		
Dummy35-44	-0.78	0.40	-2.0		
LNURM	0.12	0.07	1.8		
LNCPIMA	0.96	0.04	22.1		
Rho17	0.87	0.12	7.5		
Rho18	0.64	0.17	3.8		
Rho19	-0.31	0.23	-1.3		
Rho20	0.07	0.22	0.3		
Rho21	0.42	0.20	2.1		
Rho22	0.73	0.16	4.5		
Rho23	0.69	0.16	4.3		
Rho24	0.71	0.16	4.5		
Rho25-29	0.63	0.17	3.7		
Rho30-34	0.06	0.23	0.3		
Rho35-44	0.07	0.21	0.3		
Part-time					
Constant	-4.20	0.52	-8.1	0.76	31.6
Dummy18	2.83	0.51	5.5		
Dummy19	2.81	0.53	5.2		
Dummy20	2.93	0.53	5.5		
Dummy21	2.77	0.55	5.0		
Dummy22	2.99	0.53	5.7		
Dummy23	2.63	0.52	5.0		
Dummy24	2.40	0.52	4.6		
Dummy25-29	2.40	0.51	4.7		
Dummy30-34	2.05	0.59	3.5		
Dummy35-44	2.43	0.52	4.7		
LNCPIMA	0.57	0.03	21.9		
Rho17	0.38	0.20	1.9		
Rho18	0.10	0.21	0.5		
Rho19	0.54	0.17	3.2		
Rho20	0.32	0.21	1.6		
Rho21	0.52	0.19	2.8		
Rho22	0.31	0.21	1.4		
Rho23	0.34	0.21	1.7		
Rho24	0.41	0.20	2.1		
Rho25-29	0.37	0.20	1.8		
Rho30-34	0.88	0.14	6.3		
Rho35-44	0.53	0.20	2.6		

R^2 = Coefficient of determination.

F-Statistic = Obtained statistic for the F value.

Where:

Dummy(age) = 1 for each age and 0 otherwise.
Rho(age) = Autocorrelation coefficient for each age.
LNURM = Log unemployment rate.
LNCPIMA = Log of four-period weighted average of per capita real disposable income.

NOTE: The regression method used to estimate the full-time and part-time equations was pooled least squares with first-order autocorrelation correction. The time period used to estimate the equations is from 1975 to 1997. The number of observations is 253. For additional information, see *The Modern Forecaster* by Hans Levenbach and James P. Cleary (Van Nostrand Reinhold Company Inc., New York, 1984, pp. 354-373).

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.
(This table was prepared March 2000.)

Table A1.6.—Enrollment rates in public schools, by grade level

Grade level	Population base age	1997	Projected 2005	Projected 2010
Kindergarten	5	104.3	104.5	104.5
Grade 1	6	92.8	93.5	93.5
Elementary ungraded and special education	5-13	1.3	1.3	1.3
Secondary ungraded and special education	14-17	1.3	1.4	1.4
Postgraduate	18	0.3	0.3	0.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared March 2000.)

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Table A1.7.—Public school grade progression rates

Grade	1997	Projected 2005	Projected 2010
1 to 2	97.8	97.8	97.8
2 to 3	99.9	100.2	100.2
3 to 4	99.5	99.8	99.8
4 to 5	100.1	100.3	100.3
5 to 6	101.1	101.2	101.2
6 to 7	100.7	101.2	101.2
7 to 8	98.6	98.8	98.8
8 to 9	112.2	112.5	112.5
9 to 10	88.8	89.2	89.2
10 to 11	89.4	89.8	89.8
11 to 12	91.2	91.3	91.3

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model.
(This table was prepared March 2000.)

Table A1.8.—Full-time enrollment, by level enrolled and type of institution, as a percent of total enrollment, for each age and sex classification

Age	Men			Women		
	1997	2005	2010	1997	2005	2010
			Undergraduate, 4-year institutions			
16-17 years old	51.2	60.6	60.6	63.1	64.9	64.9
18-19 years old	65.8	65.2	65.2	69.7	69.2	69.2
20-21 years old	77.0	79.1	79.1	78.5	78.7	78.7
22-24 years old	66.1	65.2	65.2	64.1	61.7	61.7
25-29 years old	42.4	41.8	41.8	38.6	41.6	41.6
30-34 years old	32.1	36.3	36.3	44.6	42.9	42.9
35 years and over	48.1	41.2	41.2	38.7	40.6	40.6
			Undergraduate, 2-year institutions			
16-17 years old	48.8	38.4	38.4	36.9	34.3	34.3
18-19 years old	33.1	34.2	34.2	29.7	30.3	30.3
20-21 years old	20.5	19.1	19.1	20.1	19.9	19.9
22-24 years old	15.6	16.3	16.3	15.6	16.9	16.9
25-29 years old	16.9	16.9	16.9	24.9	24.8	24.8
30-34 years old	20.1	20.3	20.3	32.2	34.0	34.0
35 years and over	21.4	24.0	24.0	33.8	33.1	33.1
			Postbaccalaureate, 4-year institutions			
16-17 years old	0.0	1.0	1.0	0.0	0.8	0.8
18-19 years old	1.1	0.6	0.6	0.6	0.4	0.4
20-21 years old	2.6	1.7	1.7	1.4	1.4	1.4
22-24 years old	18.3	18.5	18.5	20.4	21.4	21.4
25-29 years old	40.6	41.3	41.3	36.5	33.6	33.6
30-34 years old	47.9	43.5	43.5	23.2	23.1	23.1
35 years and over	30.5	34.8	34.8	27.5	26.3	26.3

NOTE: Projections shown for 2005 and 2010 were adjusted to add to 100 percent before computing projections shown in tables 10 through 29.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.

(This table was prepared March 2000.)

Table A1.9.—Part-time enrollment, by level enrolled and type of institution, as a percent of total enrollment, for each age and sex classification

Age	Men 1997	Men 2005	Men 2010	Women 1997	Women 2005	Women 2010
			Undergraduate, 4-year institutions			
16-17 years old	0.0	3.0	3.0	9.1	16.0	16.0
18-19 years old	22.5	20.9	20.9	20.0	23.7	23.7
20-21 years old	22.2	27.0	27.0	19.3	24.1	24.1
22-24 years old	29.2	31.2	31.2	36.0	31.7	31.7
25-29 years old	28.8	27.9	27.9	23.5	24.5	24.5
30-34 years old	25.1	25.3	25.3	26.7	26.8	26.8
35 years and over	23.0	23.1	23.1	24.7	24.0	24.0
			Undergraduate, 2-year institutions			
16-17 years old	100.0	93.8	93.8	89.5	83.4	83.4
18-19 years old	77.5	79.0	79.0	79.1	75.7	75.7
20-21 years old	77.8	72.3	72.3	79.6	74.9	74.9
22-24 years old	61.2	60.1	60.1	51.3	55.9	55.9
25-29 years old	46.1	49.8	49.8	51.5	53.8	53.8
30-34 years old	48.4	49.7	49.7	57.1	55.5	55.5
35 years and over	52.6	51.4	51.4	52.4	52.7	52.7
			Postbaccalaureate, 4-year institutions			
16-17 years old	0.0	3.1	3.1	1.5	0.6	0.6
18-19 years old	0.0	0.0	0.0	0.9	0.6	0.6
20-21 years old	0.0	0.8	0.8	1.2	1.0	1.0
22-24 years old	9.5	8.7	8.7	12.7	12.4	12.4
25-29 years old	25.1	22.2	22.2	25.0	21.7	21.7
30-34 years old	26.5	25.0	25.0	16.2	17.7	17.7
35 years and over	24.4	25.5	25.5	22.8	23.3	23.3

NOTE: Projections shown for 2005 and 2010 were adjusted to add to 100 percent before computing projections shown in tables 10 through 29.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.

(This table was prepared March 2000.)

Table A1.10.—Public college enrollment as a percent of total enrollment, by attendance status, sex, level enrolled, and type of institution

Enrollment category	Men			Women		
	1997	2005	2010	1997	2005	2010
Full-time, undergraduate, 4-year institutions	68.6	68.9	68.9	67.3	67.6	67.6
Part-time, undergraduate, 4-year institutions	71.1	71.8	71.8	66.9	67.6	67.6
Full-time, undergraduate, 2-year institutions	93.6	93.3	93.3	93.9	93.2	93.2
Part-time, undergraduate, 2-year institutions	98.9	97.9	97.9	99.1	98.5	98.5
Full-time, postbaccalaureate, 4-year institutions	54.2	54.5	54.5	55.9	56.7	56.7
Part-time, postbaccalaureate, 4-year institutions	57.7	57.8	57.8	63.2	63.5	63.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.
(This table was prepared March 2000.)

Table A1.11.—Graduate enrollment as a percent of total postbaccalaureate enrollment, by sex, attendance status, and type and control of institution

Enrollment category	Men			Women		
	1997	2005	2010	1997	2005	2010
Full-time, 4-year, public	77.9	77.9	77.9	81.6	81.6	81.6
Part-time, 4-year, public	98.9	98.9	98.9	99.4	99.4	99.4
Full-time, 4-year, private	61.6	60.4	60.4	71.7	70.3	70.3
Part-time, 4-year, private	91.3	91.2	91.2	95.5	95.4	95.4

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.
(This table was prepared March 2000.)

Table A1.12.—Full-time-equivalent of part-time enrollment as a percent of part-time enrollment, by level enrolled and by type and control of institution

Enrollment category	1997	2005	2010
Public, 4-year, undergraduate	40.4	40.4	40.4
Public, 2-year, undergraduate	33.6	33.6	33.6
Private, 4-year, undergraduate	39.3	39.4	39.4
Private, 2-year, undergraduate	39.7	39.7	39.7
Public, 4-year, graduate	36.2	36.2	36.2
Private, 4-year, graduate	38.2	38.2	38.2
Public, 4-year, first-professional	60.0	60.0	60.0
Private, 4-year, first-professional	54.5	54.5	54.5

SOURCE: U.S. Department of Education, National Center for Education Statistics, Higher Education Enrollment Model.
(This table was prepared March 2000.)

Table A1.13.—Enrollment (assumptions)

Variables	Assumptions	Alternatives	Tables
Elementary and Secondary enrollment	Age-specific enrollment rates will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1, 2
	Public enrollment rates and public grade retention rates will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1, 2
	The percentage of 7th and 8th grade public students enrolled in school organized as secondary schools will remain constant at levels consistent with the most recent rates.	Middle (no alternatives)	1, 2
College enrollment, by age			
Full-time	Age-specific enrollment rates by sex are a function of dummy variables by age, middle alternative log of four-period weighted average of real disposable income per capita, and middle alternative log unemployment rate by age group.	Middle	10-12 16-23
	Age-specific enrollment rates by sex are a function of dummy variables by age, low alternative log of four-period weighted average of real disposable income per capita, and low alternative log unemployment rate by age group.	Low	10-12 16-23
	Age-specific enrollment rates by sex are a function of dummy variables by age, high alternative log of four-period weighted average of real disposable income per capita, and high alternative log unemployment rate by age group.	High	10-12 16-23
Part-time	Age-specific enrollment rates by sex are a function of dummy variables by age and the middle alternative log of four-period weighted average of real disposable income per capita.	Middle	10-12 16-23
	Age-specific enrollment rates by sex are a function of dummy variables by age and the low alternative log of four-period weighted average of real disposable income per capita.	Low	10-12 16-23
	Age-specific enrollment rates by sex are a function of dummy variables by age and the high alternative log of four-period weighted average of real disposable income per capita.	High	10-12 16-23
College enrollment, by sex, attendance status, level enrolled, and type of institution	For each group and for each attendance status separately, percent of total enrollment by sex, level enrolled, and type of institution will follow past trends through 2010. For each age group and attendance status category, the sum of the percentages must equal 100 percent.	High, middle, and low	10-12 16-23
College enrollment, by control of institution	For each enrollment category, by sex, attendance status, and level enrolled, and by type of institution, public enrollment as a percent of total enrollment will remain constant at levels consistent with the most recent rates.	High, middle, and low	10-12 16-23
Graduate enrollment	For each enrollment category, by sex and attendance status of student, and by type and control of institution, graduate enrollment as a percent of postbaccalaureate enrollment will remain constant at levels consistent with the most recent rates.	High, middle, and low	24
Full-time-equivalent of part-time enrollment	For each enrollment category, by type and control of institution and level enrolled, the percent that full-time-equivalent of part-time enrollment is of part-time enrollment will remain constant at levels consistent with the most recent rates.	High, middle, and low	30-32

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model, and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table A1.14.—Enrollment (estimation methods)

Variables	Years	Estimation method	Tables
Enrollment in private elementary and secondary schools, by level	1988 1989 1990	Grade-by-grade data for private elementary, secondary, and combined schools were aggregated to estimate private school enrollment by grade level.	1 2
Enrollment in institutions of higher education, by age and attendance status	1990 1995 1998	For each sex, enrollment data from the Bureau of Census by individual ages and by attendance status for 2-year age groups were combined by assuming that within the 2-year age groups, age and attendance status were distributed independently. The resultant enrollment estimates by age and attendance status were then adjusted to NCES enrollment counts by attendance status.	13 14 15

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Elementary and Secondary Enrollment Model, and Higher Education Enrollment Model. (This table was prepared March 2000.)

Table A1.15—Number of years, projection methods, and smoothing constants used to project public school enrollments and high school graduates, by state

Projected state variable	Number of years (1970-1998)	Projection method	Smoothing constant	Choice of smoothing constant
Grade progression rates	29	Single exponential smoothing	0.4	Empirical research
Graduates/grade 12 enrollment	29	Single exponential smoothing	0.4	Empirical research

SOURCE: U.S. Department of Education, National Center for Education Statistics, State Public Elementary and Secondary Enrollment Model, and State Public High School Graduates Model. (This table was prepared March 2000.)

A2. High School Graduates

National

Projections of public high school graduates were developed in the following manner. The number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1972 to 1998. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. (This percent does not make any specific assumptions regarding the dropout rate. The effect of the 12th grade dropout proportion is reflected implicitly in the graduate proportion.) The grade 12 enrollment was projected based on grade-by-grade retention rates. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting graduation ratios, such as dropouts, migration, and public/private transfers will continue over the projection period. In addition to student behaviors, the projected number of graduates could be impacted by changes in policies affecting graduation requirements.

Projections of private high school graduates were derived in the following manner. From 1970-71 to 1997-98, the ratio of private high school graduates to public school graduates was calculated. These ratios were projected using single exponential smoothing, yielding a constant value over the projection period. This constant value was then applied to projections of public high school graduates to yield projections of private high school graduates. This method assumes that the future pattern of private high school graduates will be the same as that of public high school graduates. The reader should be aware that a number of factors could alter the assumption of a constant ratio over the projection period.

Projection Accuracy

An analysis of projections from models used in the past 17 editions of *Projections of Education Statistics* indicates that the mean absolute percentage errors (MAPEs) for projections of public high school graduates were 0.7 percent for 1 year ahead, 1.5 percent for 2 years ahead, 1.9 percent for 5 years ahead, and 3.8 percent for 10 years ahead. For the 2-year-ahead prediction, this means that one would expect the projection to be within 1.5 percent of the actual value, on the average.

State-Level

This edition contains projections of high school graduates from public schools by state from 1998-99 to 2009-10. Public school graduate data from the National Center for Education Statistics' Common Core of Data survey for 1969-70 to 1997-98 were used to develop these projections. This survey does not collect graduate data for private schools.

Projections of public high school graduates by state were developed in the following manner. For each state, the number of public high school graduates was expressed as a percent of grade 12 enrollment in public schools for 1970 to 1998. This percent was projected using single exponential smoothing and applied to projections of grade 12 enrollment to yield projections of high school graduates in public schools. Projections of grade 12 enrollment were developed based on the grade retention method discussed in section A1, Enrollment. This percent was assumed to remain constant at levels consistent with the most recent rates. This method assumes that past trends in factors affecting public high school graduates will continue over the projection period.

A3. Earned Degrees Conferred

Projections of associate's, bachelor's, master's, doctor's, and first-professional degrees by sex were based on demographic models that relate degree awards to college-age populations and college enrollment by level enrolled and attendance status.

Associate's Degrees

Associate's degree projections by sex were based on undergraduate enrollment by attendance status in 2-year institutions. Results of the regression analysis used to project associate degrees by sex are shown in table A3.1.

Bachelor's Degrees

Bachelor's degree projections by sex were based on the 18- to 24-year-old population and undergraduate enrollment by attendance status in 4-year institutions. Results of the regression analysis used to project bachelor's degrees by sex are shown in table A3.1.

Master's Degrees

Master's degree projections by sex were based on full-time graduate enrollment by sex. Results of the regression analysis used to project master's degrees by sex are shown in table A3.1.

Doctor's Degrees

Doctor's degree projections for men were based on full-time male graduate enrollment and the unemployment rate. Doctor's degree projections for women were based on the 35- to 44-year-old population of women and full-time female graduate enrollment. The results of the regression analysis used to project doctor's degrees by sex are shown in table A3.1.

First-Professional Degrees

First-professional degree projections by sex were based on first-professional enrollment by attendance status in 4-year institutions. Results of the regression analysis used to project first-professional degrees by sex are shown in table A3.1.

Methodological Tables

These tables describe equations used to calculate projections (table A3.1), and basic assumptions underlying projections (table A3.2).

Projection Accuracy

An analysis of projection errors from similar models used in the past 14 editions *of Projections of Education Statistics* indicates that mean absolute percentage errors (MAPEs) for bachelor's degree projections were 2.0 percent for 1 year out, 2.9 percent for 2 years out, and 6.1 percent for 5 years out. For the 1-year-out prediction, this means that one would expect the projection to be within 2.0 percent of the actual value, on the average. For first-professional degrees, the MAPEs were 2.3, 3.2, and 4.7 percent, respectively. For doctor's degrees, based on the past 13 editions *of Projections of Education Statistics*, the MAPEs were 2.5, 4.1, and 9.7 percent, respectively. MAPEs for master's degrees, based on the past 12 editions of *Projections of Education Statistics*, were 2.2, 4.0, and 11.7, respectively. MAPEs for associate's degrees, based on the past 10 editions of *Projections of Education Statistics*, were 2.9 percent for 1 year out, 3.9 percent for 2 years out, and 6.6 percent for 3 years out.

Table A3.1.—Equations for earned degrees conferred

Dependent Variable	Equation					R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Associate's degrees	ASSOCM	=	109,504	+ 51.8UGFT2M	+ 39.0UGPT2M	0.80	1.6	AR1	0.71	1970-71 to
Men				(1.2)	(2.1)				(3.9)	1996-97
Associate's degrees	ASSOCW	=	84,470	+ 193.4UGFT2W		0.98	1.3	AR1	0.98	1970-71 to
Women				(6.0)					(39.2)	1996-97
Bachelor's degrees	BACHM	=	251,262	- 10.7P1824M	+ 167.7UGFT4M	0.88	1.7	AR1	0.64	1970-71 to
Men				(-3.2)	(5.4)				(3.9)	1996-97
Bachelor's degrees	BACHW	=	245,034	- 17.7P1824W	+ 231.2UGFT4W	0.99	1.3	AR1	0.69	1970-71 to
Women				(-4.4)	(20.2)				(4.7)	1996-97
Master's degrees	MASTM	=	37,572	+ 394.0GFTM		0.91	1.3	AR1	0.89	1970-71 to
Men				(4.4)					(10.9)	1996-97
Master's degrees	MASTW	=	38,682	+ 532.1GFTW		0.99	1.0	AR1	0.91	1972-73 to
Women				(12.3)					(13.2)	1996-97
Doctor's degrees	DOCM	=	18,241	+ 28.0GFTM1	- 41.9RUC	0.91	1.0	AR1	0.96	1970-71 to
Men				(1.6)	(-0.3)				(24.6)	1996-97
Doctor's degrees	DOCW	= -	1,638	+ 0.3P3544W	+ 35.8GFTW	0.99	2.2	AR1	0.70	1972-73 to
Women				(2.3)	(5.6)				(3.6)	1996-97
First professional degrees	FPROM	=	5,610	+ 260.4FPFTM		0.91	2.1	AR1	0.53	1970-71 to
Men				(8.5)					(2.8)	1996-97
First professional degrees	FPROW	= -	1,416	+ 289.6FPFTW	+ 213.9FPPTW	0.99	1.5	OLS		1971-72 to
Women				(18.9)	(1.6)					1996-97

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods* , New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. OLS indicates Ordinary Least Squares. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and 'and T. Lee, *The Theory and Practice of Econometrics* , New York: John Wiley and Sons, 1985, pages 315- 318.

Where:

ASSOCM	= Number of associate's degrees awarded to men
ASSOCW	= Number of associate's degrees awarded to women
BACHM	= Number of bachelor's degress awarded to men
BACHW	= Number of bachelor's degress awarded to women
MASTM	= Number of master's degrees awarded to men
MASTW	= Number of master's degrees awarded to women
DOCM	= Number of doctor's degress awarded to men
DOCW	= Number of doctor's degress awarded to women
FPROM	= Number of first-professional degrees awarded to men
FPROW	= Number of first-professional degrees awarded to women
UGFT2M	= Full-time male undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
UGPT2M	= Part-time male undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
UGFT2W	= Full-time female undergraduate enrollment in 2-year institutions, lagged 2 years, in thousands
P1824M	= Population of 18- to 24-year-old men, in thousands
P1824W	= Population of 18- to 24-year-old women, in thousands
UGFT4M	= Full-time male undergraduate enrollment in 4-year institutions, lagged 2 years, in thousands
UGFT4W	= Full-time female undergraduate enrollment in 4-year institutions, lagged 3 years, in thousands
GFTM	= Full-time male graduate enrollment, in thousands
GFTW	= Full-time female graduate enrollment, in thousands
P3544W	= Population of 35- to 44-year-old women, in thousands
GFTM1	= Full-time male graduate enrollment lagged one year, in thousands
GFTW	= Full-time female graduate enrollment, in thousands
RUC	= Unemployment rate
FPFTM	= Full-time male first-professional enrollment lagged 2 years, in thousands
FPFTW	= Full-time female first-professional enrollment lagged 1 year, in thousands
FPPTW	= Part-time female first-professional enrollment lagged 2 years, in thousands

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Earned Degrees Conferred Model.

(This table was prepared March 2000.)

Table A3.2.—Earned degrees conferred (assumptions)

Variables	Assumptions	Alternatives	Tables
Associate's degrees			
Men	The number of associate's degrees awarded to men is a linear function of full- and part-time male undergraduate enrollment in 2-year institutions lagged 2 years. This relationship will continue through 2009-10.	Middle	36
Women	The number of associate's degrees awarded to women is a linear function of full-time female undergraduate enrollment in 2-year institutions lagged 2 years. This relationship will continue through 2009-10.	Middle	36
Bachelor's degrees			
Men	The number of bachelor's degrees awarded to men is a linear function of full-time male undergraduate enrollment in 4-year institutions lagged 2 years and the male 18- to 24-year-old population. This relationship will continue through 2009-10.	Middle	37
Women	The number of bachelor's degrees awarded to women is a linear function of full-time female undergraduate enrollment in 4-year institutions lagged 3 years and the female 18- to 24-year-old population. This relationship will continue through 2009-10.	Middle	37
Master's degrees			
Men	The number of master's degrees awarded to men is a linear function of full-time male graduate enrollment. This relationship will continue through 2009-10.	Middle	38
Women	The number of master's degrees awarded to women is a linear function of full-time female graduate enrollment. This relationship will continue through 2009-10.	Middle	38
Doctor's degrees			
Men	The number of doctor's degrees awarded to men is a linear function of full-time male graduate enrollment lagged one year and the unemployment rate. This relationship will continue through 2009-10.	Middle	39
Women	The number of doctor's degrees awarded to women is a linear function of the 35- to 44-year-old population and full-time female graduate enrollment. This relationship will continue through 2009-10.	Middle	39
First-professional degrees			
Men	The number of first-professional degrees awarded to men is a linear function of full-time male first-professional enrollment lagged 2 years. This relationship will continue through 2009-10.	Middle	40
Women	The number of first-professional degrees awarded to women is a linear function of full-time female first-professional enrollment lagged 1 year and part-time female first-professional enrollment lagged 2 years. This relationship will continue through 2009-10.	Middle	40

SOURCE: U.S. Department of Education, National Center for Education Statistics, Earned Degrees Conferred Model.
(This table was prepared March 2000.)

A4. Elementary and Secondary Teachers

Public Classroom Teachers

The number of public elementary and secondary classroom teachers was projected separately for the elementary and secondary levels. The elementary teachers were modeled as a function of local education revenue receipts from state sources per capita and elementary enrollment. Secondary teachers were modeled as a function of local education revenue receipts from state sources per capita (lagged 3 years) and secondary enrollment. Local education revenue receipts from state sources were in constant 1986-87 dollars.

The equations in this section should be viewed as forecasting rather than structural equations, as the limitations of time and available data precluded the building of a large-scale, structural teacher model. The particular equations shown were selected on the basis of their statistical properties, such as coefficients of determination (R_2s), the t-statistics of the coefficients, the Durbin-Watson statistic, and residual plots.

The multiple regression technique will yield good forecasting results only if the relationships that existed among the variables in the past continue throughout the projection period.

The public elementary classroom teacher model is:

$$ELTCH = b_0 + b_1SGRANT + b_2ELENR$$

where:

ELTCH is the number of public elementary classroom teachers.

SGRANT is the level of education revenue receipts from state sources per capita in 1986-87 dollars; and

ELENR is the number of students enrolled in public elementary schools.

Each variable affects the number of teachers in the expected way. As the state spends more money on education and as enrollment increases, the number of elementary teachers hired increases.

The public secondary classroom teacher model is:

$$SCTCH = b_0 + b_1SGRANT3 + b_2SCENR$$

where:

SCTCH is the number of public secondary classroom teachers;

SGRANT3 is the level of education revenue receipts from state sources per capita in 1986-87 dollars, lagged 3 years; and

SCENR is the number of students enrolled in public secondary schools.

Each variable affects the number of teachers in the expected way. As the state spends more money on education and as enrollment increases, the number of secondary teachers hired increases.

Table A4.1 summarizes the results for the elementary and secondary public teacher models.

Enrollment is by organizational level, not by grade level. Thus, secondary enrollment is not the same as grade 9-12 enrollment because some states count some grade 7 and 8 enrollment as secondary. Therefore, the distribution of the number of teachers is also by organizational level, not by grade span.

Private Classroom Teachers

Projections of private classroom teachers were derived in the following manner. For 1960 to 1997, the ratio of private school teachers to public school teachers was calculated by organizational level. These ratios were projected using single exponential smoothing, yielding a constant value over the projection period. This constant value was then applied to projections of public school teachers by organizational level to yield projections of private school teachers. This method assumes that the future pattern in the trend of private school teachers will be the same as that for public school teachers. The reader is cautioned that a number of factors could alter the assumption of constant ratios over the projection period.

The total number of public school teachers, enrollment by organizational level, and education revenue receipts from state sources used in these projections were from the Common Core of Data (CCD) survey conducted by NCES. The proportion of public school teachers by organizational level was taken from the National Education Association and then applied to the total number of teachers from CCD to produce the number of teachers by organizational level.

Projection Accuracy

An analysis of projection errors from the past 17 editions of *Projections of Education Statistics* indicated that the mean absolute percentage errors (MAPEs) for projections of classroom teachers in public elementary and secondary schools were 1.2 percent for 1 year out, 1.4 percent for 2 years out, 2.2 percent for 5 years out, and 3.9 percent for 10 years out. For the 2-year-ahead prediction, this means that one would expect the projection to be within 1.4 percent of the actual value, on the average.

Table A4.1.—Equations for public elementary and secondary classroom teachers

Dependent Variable			Equation			R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Elementary	ELTCH	=	106.4	+ 1.7SGRANT (5.5)	+ 0.03ELENR (3.6)	0.99	1.6	AR1	0.98 (43.6)	1960 to 1997
Secondary	SCTCH	=	95.6	+ 1.5SGRANT3 (10.1)	+ 0.03SCENR (5.9)	0.95	1.5	AR1	0.70 (5.1)	1965 to 1997

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods* , New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics,* New York: John Wiley and Sons, 1985, pages 315- 318.

Where:

ELTCH	= Number of public elementary classroom teachers, in thousands
SCTCH	= Number of public secondary classroom teachers, in thousands
SGRANT	= Education revenue receipts from state sources per capita
SGRANT3	= Education revenue receipts from state sources per capita lagged 3 years
ELENR	= Number of students enrolled in public elementary schools, in thousands
SCENR	= Number of students enrolled in public secondary schools, in thousands

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary Teacher Model.

(This table was prepared May 2000.)

A5. Expenditures of Public Elementary and Secondary Schools

Econometric techniques were used to produce the projections for current expenditures and average teacher salaries. The equations in this chapter should be viewed as forecasting equations rather than structural equations. The particular equations shown were selected on the basis of their statistical properties, such as coefficients of determination (R^2s), the t-statistics of the variables, the Durbin-Watson statistic, and residual plots. These econometric models will yield good forecasting results only if the relationships that existed among the variables in the past continue throughout the projection period.

The Elementary and Secondary School Current Expenditure Model

There has been a large body of work, both theoretical and empirical, on the demand for local public services such as education.* The elementary and secondary school current expenditure model is based on this work.

The model that is the basis for the elementary and secondary school current expenditure model has been called the median voter model. In brief, the theory states that spending for each public good in the community (in this case, education) reflects the preferences of the "median voter" in the community. This individual is identified as the voter in the community with the median income and median property value. Hence, the amount of spending in the community reflects the price of education facing the voter with the median income, as well as his income and tastes. There are competing models in which the level of spending reflects the choices of others in the community, such as the "bureaucrats." The median voter model was chosen as the basis of the elementary and secondary school current expenditure model as it has been the one most thoroughly studied.

There have been many empirical studies of the demand for education expenditures using the median voter model. In most instances, researchers have used cross-sectional data. The elementary and secondary school current expenditure model was built on the knowledge gained from these cross-sectional studies and was adapted from them for use in a time-series study.

In a median voter model, the demand for education expenditures is typically linked to four different types of variables: 1) measures of the income of the median voter; 2) measures of intergovernmental aid for education going indirectly to the median voter; 3) measures of the price to the median voter of providing one more dollar of education expenditures per pupil; and 4) any other variables that may affect one's tastes for education. The elementary and secondary school current expenditure model contains variables reflecting the first three types of variables. The model is:

$$\ln(CUREXP) = b_0 + b_1\ln(PCI) + b_2\ln(SGRNT) + b_3\ln(ADAPOP)$$

where:

ln indicates the natural log;

CUREXP equals current expenditures of public elementary and secondary schools per pupil in average daily attendance in constant 1982-84 dollars;

PCI equals disposable income per capita in constant 1992 dollars;

SGRNT equals local governments' education revenue receipts from state sources, per capita, in constant 1982-84 dollars; and

ADAPOP equals the ratio of average daily attendance to the population.

The model was estimated using the AR1 model for correcting for autocorrelation. This was done because the test statistics were significantly better than those from the ordinary least squares (OLS) estimation, and the Durbin-Watson statistic was in the inconclusive region when the model was estimated using OLS. This is the seventh edition of *Projections of Education Statistics* in which this method of estimation, rather than OLS, was used. Ordinary least squares was used in the previous four editions of *Projections of Education Statistics*. The sample period was from 1959–60 to 1997–98.

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* For a review and discussion of this literature, see Inman, R. P. (1979),``The fiscal performance of local governments: An Interpretive Review," in *Current Issues in Urban Economics*, edited by P. Mieszkowski and M. Straszheim, Johns Hopkins Press, Baltimore, Maryland.

There are potential problems with using a model for local government education expenditures for the nation as a whole. Two such problems concern the variable SGRNT. First, the amount of money which local governments receive for education from state governments varies substantially by state. Second, the formulas used to apportion state moneys for education among local governments vary by state.

Beginning in 1988–89, there was a major change in the survey form used to collect data on current expenditures. This new survey form produces a more complete measure of current expenditures; therefore, the values for current expenditures are not completely comparable to the previously collected numbers. In a crosswalk study, data for a majority of states were also collected for 1986–87 and 1987–88 that were comparable to data from the new survey form. A comparison of these data with those from the old survey form suggests that the use of the new survey form may have increased the national figure for current expenditures by approximately 1.4 percent over what it would have been if the survey form had not been changed. When the model was estimated, all values for current expenditures before 1988–89 were increased by 1.4 percent.

The results for the model are shown in table A5.1. Each variable affects current expenditures in the direction that would be expected. With high levels of income (PCI) or revenue receipts from state source (SGRNT), the level of spending increases. As the number of pupils increases relative to the population (that is, as ADAPOP increases), the level of spending per pupil falls.

From the cross-sectional studies of the demand for education expenditures, we have an estimate of how sensitive current expenditures are to changes in PCI and ADAPOP. We can compare the results from this model with those from the cross-sectional studies. For this model, an increase in PCI of 1 percent, with SGRNT and ADAPOP held constant, would result in an increase of current expenditures per pupil in average daily attendance of approximately 0.48 percent. With PCI and SGRNT held constant, an increase of 1 percent in ADAPOP would result in a decrease in current expenditures per pupil in average daily attendance of approximately 0.38 percent. Both numbers are well within the range of what has been found in cross-sectional studies.

The results from this model are not completely comparable with those from some of the previous editions of *Projections of Education Statistics*. First, as with the previous edition, the population number for each school year is the Bureau of the Census's July 1 population number for the upcoming school year. In earlier editions, each school year's population number was the average of an economic consulting firm's (either Standard and Poor's DRI or the WEFA Group) estimated population numbers of each quarter in that school year. Second, there have been changes in the definition of the disposable income.

Projections for total current expenditures were made by multiplying the projections for current expenditures per pupil in average daily attendance by projections for average daily attendance. The projections for total current expenditures were divided by projections for fall enrollment to produce projections of current expenditures per pupil in fall enrollment. Projections were developed in 1982-84 dollars and then placed in 1998–99 dollars using the Consumer Price Index. Current-dollar projections were produced by multiplying the constant-dollar projections by projections for the Consumer Price Index.

Three alternative sets of projections for current expenditures are presented: the middle alternative projections; the low alternative projections; and the high alternative projections. The alternative sets of projections differ because of varying assumptions about the growth paths for disposable income and revenue receipts from state sources.

The alternative sets of projections for the economic variables, including disposable income, were developed using three economic scenarios prepared by Standard & Poor's DRI (DRI) for use on its U.S. Quarterly Model. The U.S. Quarterly model is an econometric model of the U.S. economy developed by DRI for the personal computer which projects more than 1,200 economic concepts. Periodically, DRI supplies alternative scenarios of the economy, including long-term scenarios. The February 2000 series of long-term scenarios was used for the three sets of alternative economic projections used here.

DRI's trend scenario was used as a base for the middle alternative projections of the economic variables. DRI's trend scenario depicts a mean of possible paths that the economy could take over the forecast period, barring major shocks. The economy, in this scenario, evolves smoothly, without major fluctuations.

DRI's February 2000 pessimistic scenario was used for the low alternative projections and DRI's February 2000 optimistic scenario was used for the high alternative projections.

In the middle alternative projections, disposable income per capita rises each year from 2000–01 to 2009–10 at rates between 1.8 percent and 2.7 percent. In the low alternative projections, disposable income per capita ranges between 0.5 percent and 2.4 percent, and in the high alternative projections, disposable income per capita rises at rates between 2.6 percent and 3.9 percent.

The alternative projections for revenue receipts from state sources were produced using the following model:

$$\ln(\text{SGRNT}) = b_0 + b_1\ln(\text{PERTAX1}) + b_2\ln(\text{ADAPOP}) + b_3\ln(\text{RCPIANN}/\text{RCPIANN1})$$

where:

ln indicates the natural log;

SGRNT equals local governments' education revenue receipts from state sources, per capita, in constant 1982-84 dollars;

PERTAX1 equals personal taxes and nontax receipts to state and local governments, per capita, in constant 1982-84 dollars lagged one period;

ADAPOP equals the ratio of average daily attendance to the population;

RCPIANN equals the inflation rate measured by the Consumer Price Index; and

RCPIANN1 equals the inflation rate measured by the Consumer Price Index lagged 1 period.

This equation was estimated using the AR1 model for correcting for autocorrelation. The sample period was from 1960–61 to 1997–98. These models are shown in table A5.1.

The values of the coefficients in this model follow expectations. As state governments receive more revenue (higher PERTAX1), they have more money to send to local governments for education. As the enrollment increases relative to the population (higher ADAPOP), so does the amount of aid going to education. Finally, in years with rapidly increasing inflation (higher RCPIANN/RCPIANN1), the real dollar values of revenue receipts from state governments to local governments would fall, other things being equal.

This is the fourth edition of the *Projections of Education Statistics* in which this model has been used to create projections of SGRNT. The model used in *Projections of Education Statistics to 2006* was identical to the model used in this edition except that it contained a second measure of state and local government revenue. In earlier editions, similar models were used except the variables were not in log form.

Three alternative sets of projections for SGRNT were produced using this model. Each is based on a different set of projections for personal taxes and the rate of change in the inflation rate. The middle set of projections was produced using the values from the middle set of alternative projections. The low set of projections was produced using the values from the low set of alternative projections and the high set of projections was produced using the values from the high set of alternative projections. In the middle set of projections, personal taxes and nontax receipts increase at rates between 0.1 percent and 3.3 percent. In the low set of projections, personal taxes and nontax receipts increase at rates between -2.0 percent and 2.8 percent. In the high set of projections, personal taxes and nontax receipts increase at rates between 0.8 percent and 4.4 percent.

In the middle set of projections, revenue receipts from state sources increase at rates between -0.5 percent and 2.6 percent for the period from 2000–01 to 2009–10. In the low set of projections, they increase at rates between -1.7 percent and 2.5 percent. In the high set of projections, they increase at rates between 0.1 percent and 2.7 percent.

The Elementary and Secondary Teacher Salary Model

Most studies conducted on teacher salaries, like those on current expenditures, have used cross-sectional data. Unlike current expenditures models, however, the models for teacher salaries from these existing cross-sectional studies cannot easily be reformulated for use with time-series data. One problem is that we do not have sufficient information concerning the supply of qualified teachers who are not presently teaching. Instead, the elementary and secondary salary model contains terms that measure the demand for teachers in the economy.

The elementary and secondary teacher salary model is:

$$\ln(\text{SALRY}) = b_0 + b_1\ln(\text{CUREXP}) + b_2\ln(\text{ADAPOP}) + b_3\ln(\text{ADA1}/\text{ADA2})$$

where:

ln indicates the natural log;

SALRY equals the estimated average annual salary of teachers in public elementary and secondary schools in constant 1982-84 dollars;

CUREXP equals current expenditures of public elementary and secondary schools per pupil in average daily attendance in constant 1982-84 dollars;

ADAPOP equals the ratio of average daily attendance to the population;

ADA1 equals the average daily attendance lagged 1 period; and

ADA2 equals the average daily attendance lagged 2 periods.

The model was estimated using the period from 1959–60 to 1997–98 as a sample period. The AR1 model for correcting for autocorrelation was used as the Durbin-Watson statistic was in the inconclusive region when the model was estimated using OLS.

While there are values for teacher salaries through 1998–99, the model was estimated using the period from 1959–60 to 1997–98 as there are values for current expenditures only through 1997–98. The actual values for teacher salaries for 1996–97 and 1997–98, not those estimated using the model, appear in table 36. The projected values for teacher salaries for the projection period from 1998–99 to 2008–09 also are not the numbers which appear in table 36. Rather, three new sets of projections for teacher salaries were calculated using the projected percent changes produced by the model.

Due to the effects on current expenditures caused by the change in survey forms discussed above, the values for current expenditures for 1959–60 to 1987-88 were increased by 1.4 percent when the salary model was estimated. The coefficients of the salary model are different than if the unadjusted numbers for current expenditures had been used and hence the forecasts are different.

The results for this model are also shown in table A5.1. There is no literature for comparing the sizes of the coefficients. However, the direction of the impact each variable has on salaries is as expected: as the level of spending per pupil increases (higher CUREXP), more teachers can be hired, so demand for teachers increases and salaries may increase; as the number of students increases (higher ADAPOP and ADA1/ADA2), demand for teachers may increase, so salaries may increase.

This model was also used to produce the projections of teacher salaries presented in the *Projections of Education Statistics to 2009*, *Projections of Education Statistics to 2008*, *Projections of Education Statistics to 2007* and the *Projections of Education Statistics to 2006*. In seven earlier editions, similar models were used except the variables were not in log form.

As with current expenditures, three different scenarios are presented for teacher salaries. The same projections for ADAPOP and ADA are used for each alternative projection; the sole difference between the projections is in the projection for current expenditures. The middle alternative projection for salaries uses the middle alternative projection for current expenditures. The low alternative projection for salaries uses the low alternative projection for current expenditures. The high alternative projection for salaries uses the high alternative projection for current expenditures.

Current expenditures, average teacher salaries, and the number of teachers are interrelated; analysis was conducted to see whether the projections of these three time series were consistent.

The number of teachers was multiplied by the average salary and then divided by current expenditures for every school year from 1984–85 until 2009–10 (using the middle alternative projection for teachers, salaries, and current expenditures). The resulting value shows the portion of current expenditures that is spent on teacher salaries. The portion of current expenditures that goes toward teacher salaries has been in a slow downward trend, with the teacher salary share falling from 40 percent in 1984–85 to 38 percent in 1997–98. With the projected values, the portion of current expenditures that go toward teacher salaries continues to fall slowly, falling to 32 percent in 2009–10. The results of this analysis indicate that the projections of these three time series are consistent.

Projection Accuracy

This is the twelth consecutive year in which *Projections of Education Statistics* has contained projections of current expenditures and teacher salaries. The actual values of current expenditures and teacher salaries can be compared with the projected values in the previous editions to examine the accuracy of the models.

The projections from the various editions of *Projections of Education Statistics* were placed in 1981–82 dollars using the Consumer Price Indices that appeared in each edition.

The same set of independent variables has been used in the production of the current expenditure projections presented in the last eleven editions of the *Projections of Education Statistics* including this one. There have been some differences in the construction of the variables however. First, with the *Projections of Education Statistics to 1997–98*, calendar year data were used for disposable income, the population, and the Consumer Price Index. With the later editions, school year data were used. Second, there have been two revisions in the disposable income time series. Third, there have been two changes to the population variable. In the more recent editions, including this one, the Census Bureau's July 1 number for the population has been used. In the earlier editions, an average of the quarterly values was used. Also in the more recent editions, the U.S. Bureau of the Census's population projections have been used. In the earlier editions, the population projections came from an economic consulting firm, either DRI or the WEFA Group.

There has also been a change in the estimation procedure. In the more recent editions, the AR1 model for correcting for autocorrelation was used to estimate the model. In the earlier editions, ordinary least squares was used to estimate the model.

There are several commonly used statistics which can be used to evaluate projections. The values for one of these, the mean absolute percentage error (MAPE), are presented in table A5.2. MAPEs are presented for total current expenditures, current expenditures per pupil in average daily attendance, and teacher salaries.

To calculate the MAPEs presented in table A5.2, the projections of each variable were first grouped by lead time, that is: all the projections of each variable that were a given number of years from the last year in the sample period were grouped together. Next, the percent differences between each projection and its actual value were calculated. Finally, for each variable, the mean of the absolute values of the percent differences were calculated, with a separate average for each lead time. These means are the MAPEs. Hence, in table A5.2, there are a series of MAPEs for each variable with a different MAPE for each lead time.

For some editions of the *Projections of Education Statistics*, the first projection to be listed did not have a lead time of one year. For example, in *Projections of Education Statistics to 2002*, the first projection to appear was for 1990–91. This projection was calculated using a sample period ending in 1988–89, so it had a lead time of two years. The value that appeared for 1989–1990 was from NCES *Early Estimates*. Only those projections which appeared in an edition of *Projections of Education Statistics* were used in this evaluation.

Some of the differences between the actual values and the projected values for current expenditures and current expenditures per pupil are due to the change in the survey form for current expenditures that took place in 1988–89. The results of the crosswalk study suggest that values for current expenditures as presently collected are approximately 1.4 percent higher than they would have been if no change had been made. If the projections for 1988–89, 1989–90, and 1990–91 which appeared in *Projections of Education Statistics to 1997–98*, *Projections of Education Statistics to 2000*, *Projections of Education Statistics to 2001: An Update*, are increased by 1.4 percent, some MAPEs decrease. MAPEs for current expenditures and current expenditures per pupil after this adjustment has been made can also be found in table A5.2.

Projections for teacher salaries also appeared in the eleven most recent editions of *Projections of Education Statistics*. Beginning with the *Projections of Education Statistics to 2006*, there was one major change in the model used for teacher salary projections; all the variables were placed in log form. With this change in functional form, there was also a change in the way the change in enrollment was measured. In the most recent editions, the change in enrollment was measured by taking the ratio of the average daily attendance lagged one period to the average daily attendance lagged two periods. In the previous three editions of *Projections of Education Statistics*, the change in enrollment was measured by the change from the previous year in average daily attendance lagged one period. In *Projections of Education Statistics to 1997–98*, *Projections of Education Statistics to 2000*, and *Projections of Education Statistics to 2001*, both the change in average daily attendance lagged one period and the change in average daily attendance lagged two periods were included in the model.

There was another difference between the model used to produce the teacher salary projections in *Projections of Education Statistics to 1997–98* and those used in the later editions including this one: variables in the model were calculated using calendar year data for the population and the Consumer Price Index rather than school year data as in previous editions.

Sources of Past and Projected Data

Numbers from several different sources were used to produce these projections. In some instances, the time series used were made by either combining numbers from various sources or manipulating the available numbers. The sources and the methods of manipulation are described here.

The time series used for current expenditures was compiled from several different sources. For the school years ending in even numbers from 1959–60 to 1975–76, the numbers for current expenditures were taken from various issues of *Statistics of State School Systems*, published by NCES. The numbers for the school years ending in odd numbers during the 1960s were taken from various issues of the National Education Association's *Estimates of School Statistics*. For the school years ending in odd numbers during the 1970s, up to and including 1976–77, the numbers were taken from various issues of *Revenues and Expenditures for Public Elementary and Secondary Education*, published by NCES. For the school years from 1977–78 until 1995–96, the numbers were taken from the NCES Common Core of Data survey and unpublished data.

For 1974–75 and 1976–77, expenditures for summer schools were subtracted from the published figures for current expenditures. The value for 1972–73 was the sum of current expenditures at the local level, expenditures for administration by state boards of education and state departments of education, and expenditures for administration by intermediate administrative units.

Note that although the data from the different sources are similar, they are not entirely consistent. Also, the NCES numbers beginning with 1980–81 are not entirely consistent with the earlier NCES numbers, due to differing treatments of items such as expenditures for administration by state governments and expenditures for community services.

An alternative source for current expenditures would have been the Bureau of the Census's F-33 which offers statistics at the district level. This level of detail was not needed, however.

For most years, the sources for the past values of average daily attendance were identical to the sources for current expenditures. For 1978–79, the number was taken from *Revenues and Expenditures for Public Elementary and Secondary Education.*

Projections for average daily attendance for the period from 1998–99 to 2009–10 were made by multiplying the projections for enrollment by the average value of the ratios of average daily attendance to the enrollment from 1986–87 to 1997–98; this average value was approximately 0.93.

The values for fall enrollment from 1959–60 to 1977–78 were taken from issues of the NCES publication *Statistics of Public Elementary and Secondary Schools*. The 1978–79 value was taken from the NCES Bulletin of October 23, 1979, "Selected Public and Private Elementary and Secondary Education Statistics." The values from 1979–80 to 1996–97 were taken from the NCES Common Core of Data survey. The projections for fall enrollment are those presented in Chapter 1.

For 1959–60 to 1997–98, the sources for revenue receipts from state sources were the two NCES publications *Statistics of State School Systems* and *Revenues and Expenditures for Public Elementary and Secondary Education* and the NCES Common Core of Data survey. The methods for producing the alternative projections for revenue receipts from state sources are outlined above.

The estimates for average teacher salaries were taken from various issues of the National Education Association's *Estimates of School Statistics*.

The projected values for disposable income, personal taxes and nontax receipts to state and local governments, and indirect business taxes and tax accruals to state and local governments, were developed using projections developed by DRI's U.S. Quarterly Model. Projected values of the Bureau of Labor Statistics' Consumer Price Index for all urban consumers, which was used for adjusting current expenditures, teacher salaries, revenue receipts from state sources, and the state revenue variables, were also developed using the U.S. Quarterly Model.

Both the historical and projected values for the population were supplied by the U.S. Bureau of the Census.

The values of all the variables from DRI were placed in school-year terms. The school-year numbers were calculated by taking the average of the last two quarters of one year and the first two quarters of the next year.

The Elementary and Secondary School Price Index was considered as a replacement for the Consumer Price Index for placing current expenditures and teacher salaries in constant dollars. As projections of the price index are required for placing the forecasts into current dollars, and as there are no projections of the Elementary and Secondary School Price Index, the Consumer Price Index was used. There are other price indexes, such as the implicit price deflator for state and local government purchases, that could have been used instead of the Consumer Price Index. These alternatives would have produced somewhat different projections.

Table A5.1.—Equations for current expenditures per pupil in average daily attendance, estimated average annual salaries of teachers, and education revenue receipts from state sources

Dependent Variable	Equation				R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Current expenditures per pupil	ln(CUREXP) =	- 0.69 (-0.64)	+ 0.478ln(PCI) (2.33)	+ 0.617ln(SGRANT) (4.75)	0.997	1.93	AR1	0.67 (4.43)	1959-60 to 1997-98
		- 0.377ln(ADAPOP) (-2.37)							
Estimated average annual salaries	ln(SALRY) =	7.7 (30.0)	+ 0.43ln(CUREXP) (11.11)	+ 0.67ln(ADAPOP) (5.41)	0.981	1.38	AR1	0.87 (9.19)	1959-60 to 1997-98
		+ 1.05ln(ADA1/ADA2) (3.23)							
Education revenue receipts from state sources per capita	ln(SGRNT) =	2.8 (21.1)	+ 0.68ln(PERTAX1) (27.7)	+ 0.59ln(ADAPOP) (5.10)	0.992	1.84	AR1	0.51 (3.41)	1960-61 to 1997-98
		- 0.02ln(RCPIANN/RCPIANN1) (-1.63)							

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods* , New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. For a general discussion of the problem of autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics,* New York: John Wiley and Sons, 1985, pages 315- 318.

Where:

CUREXP	= Current expenditures of public elementary and secondary schools per pupil in average daily attendance in constant 1982-84 dollars
SALRY	= Average annual salary of teachers in public elementary and secondary schools in constant 1982-84 dollars
SGRNT	= Local governments' education revenue receipts from state sources, per capita, in constant 1982-84 dollars
PCI	= Disposable income per capita in constant 1992 dollars
ADAPOP	= Ratio of average daily attendance to the population
PERTAX1	= Personal taxes and nontax receipts to state and local governments, per capita, in constant 1982-84 dollars lagged one period
RCPIANN	= Inflation rate measured by the Consumer Price Index
RCPIANN1	= Inflation rate measured by the Consumer Price Index lagged 1 period
ADA1	= Average daily attendance lagged 1 period
ADA2	= Average daily attendance lagged 2 periods

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Elementary and Secondary School Current Expenditures Model; Elementary and Secondary Teacher Salary Model; and Revenue Receipts from State Sources Model.
(This table was prepared May 2000.)

Table A5.2.—Mean absolute percentage errors by lead time for current expenditures, current expenditures per pupil in average daily attendance (ADA), and estimated salaries of classroom teachers in public elementary and secondary schools

Lead Time (years)	Mean absolute percentage errors				
	Current Expenditures		Current Expenditures		Estimated average
	Total	Per pupil in ADA	Total	Per pupil in ADA	annual salaries
One	1.1%	1.0%	1.2%	0.9%	1.3%
Two	2.1%	1.5%	1.7%	1.3%	1.6%
Three	2.1%	1.7%	1.8%	1.6%	2.0%
Four	2.2%	2.1%	2.1%	2.3%	4.0%
Five	3.2%	3.3%	3.6%	3.9%	6.6%
Six	4.0%	4.3%	4.6%	4.9%	9.3%
Seven	4.8%	5.6%	5.6%	6.3%	11.8%
Eight	5.2%	7.0%	6.1%	7.9%	13.8%
Nine	3.8%	7.1%	4.9%	8.2%	15.3%
Ten	2.5%	6.7%	3.6%	8.2%	15.7%

[1]Values for current expenditures and current fund expenditures per pupil in average daily attendance from *Projections of Education Statistics to 1997-98* , *Projections of Education Statistics to 2000* , and *Projections of Education Statistics to 2001: An Update* were increased by 1.4 percent to compensate for the change in the survey for current expenditures which occurred in 1988-89.

—The actual value of current expenditures was not available to calculate mean absolute percentage errors of lead times of ten years.

SOURCES: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics,* various issues. (This table was prepared May 2000.)

A6. Expenditures of Institutions of Higher Education

One current-fund expenditure model and one educational and general expenditure model were estimated for each of three types of higher education institutions—public 4-year, public 2-year, and private 4-year. In each case, econometric techniques were used. Due to the lack of a consistent database for private 2-year schools, the last actual values, for 1995–96, were used as constants. These values for private 2-year schools were used in the tables for expenditures in all institutions (tables 46 and 47.)

The higher education econometric models were selected on the basis of their statistical properties, such as the coefficients of determination (R^2), the t-statistics of the variables, the Durbin-Watson statistic, and residual plots. These econometric models will yield good forecasting results only if the relationships that existed among the variables in the past continue throughout the projection period.

Higher Education Institutions Expenditure Models

Similar econometric models were developed for the three types of institutions. While there has been significantly less work by economists studying the factors influencing higher education finance data than those influencing elementary and secondary finance data, there have been some valuable studies. This body of work was used in building these models.

In Chapter 7, some of the factors that are historically associated with the level of expenditures are discussed. These are: (1) the state of the economy; (2) the inflation rate; and (3) enrollments. Each of the models presented here contains variables measuring at least two of these three factors. Either disposable income per capita or revenues of state and local governments per capita was used to measure the state of the economy. Two measures of the inflation rate were considered: the rate of change in the inflation rate; or a dummy for years with inflation rates greater than 8 percent. In each equation, an enrollment variable was included.

For each dependent variable, a number of alternative specifications were examined. In each case, the choice of the final specification was made after considering such factors as the coefficients of determination, the t-statistics of the variables, residual plots, and ex-post mean absolute percent errors. The final specification of each model has the dependent variables and some of the independent variables as first differences.

The Public 4-Year Institutions Expenditure Models

The public 4-year institutions current-fund expenditure model is:

$$\mathrm{DPUTCUR4} = b_0 + b_1\mathrm{DSTREV1} + b_2\mathrm{DPUFTE4} + b_3\mathrm{DUMMY}$$

where:

DPUTCUR4 is the change from the previous year in current-fund expenditures per student in full-time-equivalent (FTE) enrollment in public 4-year institutions in constant 1982–84 dollars;

DSTREV1 is the change from the previous year in the sum of personal tax and nontax receipts to state and local governments and indirect business taxes and tax accruals, excluding property taxes, to state and local governments, per capita, in constant 1982–84 dollars lagged one year;

DPUFTE4 is the change from the previous year in FTE enrollment in public 4-year institutions in thousands of students; and

DUMMY is a dummy variable equaling 1 when the inflation rate is greater than 8 percent and 0 otherwise.

This model and the other econometric models were estimated using a sample period from 1968–69 to 1995–96. Ordinary least squares was used to estimate all the public institution models.

The results for this model are in table A6.1. Each variable affects current-fund expenditures in a logical fashion. The more revenues that state and local governments receive, the more expenditures they can make for public institutions of higher education. In a year with high inflation (DUMMY equals 1), current-fund expenditures in constant dollars are lower than they would have been otherwise. The more students in public 4-year institutions, the less money to be spent per student.

Three projections were produced: the middle alternative set of projections, the low alternative set of projections, and the high alternative set of projections. Each set of projections was based on a different set of assumptions for the revenues of state and local governments per capita. The projections for revenues of state and local governments per capita and the other economic variables used to produce the higher education expenditure projections were produced using the U.S. Quarterly Model of Standard & Poor's DRI (DRI). The development of these alternative sets of projections is discussed in Appendix A5.

In the middle set of alternative projections, the revenues of state and local governments per capita increase at rates between 1.4 percent and 3.1 percent from 2000–01 to 2009–10. In the low set of alternative projections, the revenues of state and local governments per capita increase at rates between -0.7 percent and 2.0 percent. In the high set of alternative projections, the revenues of state and local governments per capita increase at rates between 2.6 percent and 4.7 percent.

Projections for total current-fund expenditures were made by multiplying the projections for current-fund expenditures per student in FTE enrollment by projections for FTE enrollment. Projections were developed in 1982–84 dollars and then placed in 1998–99 dollars using projections for the Consumer Price Index. Current dollar projections were produced by multiplying the constant dollar projections by projections for the Consumer Price Index. All the higher education total expenditure projections, all expenditure projections in 1998–99 dollars, and all the current dollar projections were calculated in similar fashion.

A model for educational and general expenditures of public 4-year institutions was developed using the same variables as the current-fund expenditure model. The model is:

$$\text{DPUED4} = b_0 + b_1\text{DSTREV1} + b_2\text{DPUFTE4} + b_3\text{DUMMY}$$

where:

DPUED4 is the change from the previous year in educational and general expenditures per student in FTE enrollment in public 4-year institutions in constant 1982–84 dollars.

This model is also shown in table A6.1.

As with current-fund expenditures, each variable affects expenditures in the expected way.

The Public 2-Year Institutions Expenditure Models

The public 2-year institutions current-fund expenditure model has a form similar to the public 4-year institutions current-fund expenditure model except that the public 2-year institutions model does not contain any inflation variables. The model is:

$$\text{DPUTCUR2} = b_0 + b_1\text{DSTREV1} + b_2\text{DPUFTE2}$$

where:

DPUTCUR2 is the change from the previous year in current-fund expenditures per student in FTE enrollment in public 2-year institutions in constant 1982–84 dollars; and

DPUFTE2 is the change from the previous year in FTE enrollment in public 2-year institutions in thousands of students.

The results for this model are in table A6.1. Again, DSTREV1 has the expected positive effect on expenditures and the FTE enrollment variable has the expected negative impact.

The public 2-year institutions educational and general expenditure model is virtually identical to its current-fund expenditures counterpart. It is:

$$\text{DPUED2} = b_0 + b_1\text{DSTREV1} + b_2\text{DPUFTE2}$$

where:

DPUED2 is the change from the previous year in educational and general expenditures per student in FTE enrollment in public 2-year institutions in constant 1982–84 dollars.

The results of this model appear in table A6.1.

The Private 4-Year Institutions Expenditure Models

The private 4-year institutions current-fund expenditure model is:

$$\text{DPRTCUR4} = b_0 + b_1\text{DPCI} + b_2\text{DPRFTE4} + b_3\text{ININCR}$$

where:

DPRTCUR4 is the change from the previous year in current-fund expenditures per student in FTE enrollment in private 4-year institutions in constant 1982–84 dollars;

DPCI is the change from the previous year in disposable income per capita in 1992 dollars;

DPRFTE4 is the change from the previous year in FTE enrollment in private 4-year institutions to the population in thousands; and

ININCR is the rate of change in the inflation rate measured by the Consumer Price Index.

The model was estimated using the AR1 method for correcting for autocorrelation.

The three alternative sets of projections for current-fund expenditures were produced using varying assumptions about the growth paths for disposable income and the rate of change in the inflation rate measured by the Consumer Price Index. These disposable income and inflation rate projections were also developed using the DRI's U.S. Quarterly Model.

In the middle set of projections, disposable income per capita rises each year from 2000–01 to 2009–10 at rates between 1.8 percent and 2.7 percent. In the low set of projections, disposable income per capita increases at rates between 0.5 percent and 2.4 percent. In the high set of projections, disposable income per capita increases at rates between 2.6 percent and 3.9 percent.

In the middle set of projections, the inflation rate varies between 2.2 percent and 2.7 percent. In low set of projections, it varies between 1.7 percent and 2.7 percent, and in the high set of projections, it varies between 0.7 percent and 2.1 percent.

The private 4-year institutions educational and general expenditure model is:

$$DPRIED4 = b_0 + b_1 DPCI + b_2 DPRFTE4 + b_3 ININCR$$

where:

DPRIED4 is the change in educational and general expenditures per student in FTE enrollment in private 4-year institutions in constant 1982–84 dollars.

The results of this model appear in table A6.1.

The Private 2-Year Institutions Expenditure Models

Unlike the other higher education variables, econometric methods were not used for either private 2-year current-fund expenditures or private 2-year educational and general expenditures. This was due to a change in the sample universe for private 2-year institutions. The period for which the private 2-year universe is relatively consistent, from 1982–83 to 1995–96, has only fourteen observations. This is too short a period for econometric techniques, so another means of projecting private 2-year institution expenditures was required. To compute national totals for all institutions despite this deficiency, another method of estimation was used. Both current-fund expenditures per student and educational and general expenditures per student were assumed to stay constant at the last year for which there are data, 1995–96. These values for private 2-year schools were used in the tables for expenditures in all institutions (tables 37 and 38.)

Projection Accuracy

This is the ninth time in the past twelve years that *Projections of Education Statistics* has contained projections of higher education expenditure data. The other eight editions were the *Projections of Education Statistics to 2009*, *Projections of Education Statistics to 2008*, *Projections of Education Statistics to 2007*, *Projections of Education Statistics to 2006*, *Projections of Education Statistics to 2005*, *Projections of Education Statistics to 2004*, *Projections of Education Statistics to 2003* and *Projections of Education Statistics to 2000*. The projections that appeared in the seven most recent editions of *Projections of Education Statistics* were developed using the same methodology as that presented here. Those that appeared in *Projections of Education Statistics to 2000* were produced using different models.

There are several commonly used statistics which can be used to evaluate projections. The values for one of these, the mean absolute percentage error (MAPE), are presented in table A6.2. MAPEs are presented for current-fund expenditures and for educational and general expenditures by several different breakdowns. Two alternative sets of MAPEs are presented: with one set, the projections from six of the last eight editions of the *Projections of Education Statistics* were used in the calculations; with the other, the projections from the *Projections of Education Statistics to 2000* were also included. No projections from the *Projections of Educations Statistics to 2009* could be evaluated as there has been no additional higher education expenditure data since the publication of that edition.

To calculate the MAPEs presented in table A6.2, the projections of each variable were first grouped by lead time, that is: all the projections of each variable that were a given number of years from the last year in the sample period were grouped together. Next, the percent differences between each projection and its actual value were calculated. Finally, for each variable, the mean of the absolute values of the percent differences were calculated, with a separate average for each lead time. These means are the MAPEs of each variable for each lead time which are presented in table A6.2.

Sources of Data

The current-fund expenditure data and the educational and general expenditure data are from the "Financial Statistics of Institutions of Higher Education" and the Integrated Postsecondary Education Data System (IPEDS) "Finance" surveys of the National Center for Education Statistics (NCES). One manipulation of the educational and general expenditures numbers was required. From 1968–69 to 1973–74, student-aid expenditures were a separate component of current-fund expenditures. From 1974–75 on, scholarships and fellowships have been a component of educational and general expenditures. Hence, for the period 1968–69 to 1973–74, student aid was added to the published numbers for educational and general expenditures.

The full-time-equivalent (FTE) enrollment data are from the "Fall Enrollment in Colleges and Universities" surveys of NCES. The FTE enrollment figures for 1968–69, 1969–70, and 1970–71 were estimated using part-time and full-time enrollment data. Full-time-equivalent enrollment was derived by adding one-third next year.

Table A6.1.—Equations for current-fund expenditures per student in full-time-equivalent enrollment and educational and general expenditures per student in full-time-equivalent enrollment in public 4-year institutions, public 2-year institutions, and private 4-year institutions

Dependent Variable	Equation	R^2	Durbin-Watson statistic[1]	Estimation technique[2]	Rho	Time period
Current-fund expenditures per student in public 4-year institutions	DPUTCUR4 = 263 + 2.28DSTREV1 - 0.002DPUFTE4 - 228DUMMY (5.30) (2.18) (-5.60) (-3.37)	0.661	1.96	OLS		1968-69 to 1995-96
Current-fund expenditures per student in public 2-year institutions	DPUTCUR2 = 35.6 + 2.80DSTREV1 - 0.001DPUFTE2 (1.06) (3.51) (-4.26)	0.649	2.17	OLS		1968-69 to 1995-96
Current-fund expenditures per student in private 4-year institutions	DPRTCUR4 = 449 + 0.32DPCI - 0.009DPRFTE4 - 489.8ININCR (3.99) (2.42) (-6.46) (-5.96)	0.772	1.91	AR1	0.721 (5.01)	1968-69 to 1995-96
Educational and general expenditures per student in public 4-year institutions	DPUED4 = 221 + 1.96DSTREV1 - 0.002DPUFTE4 - 222DUMMY (4.59) (1.94) (-6.18) (-3.38)	0.692	1.64	OLS		1968-69 to 1995-96
Educational and general expenditures per student in public 2-year institutions	DPUED2 = 28.2 + 2.93DSTREV1 - 0.0006DPUFTE2 (0.78) (3.41) (-3.30)	0.576	1.88	OLS		1968-69 to 1995-96
Educational and general expenditures per student in private 4-year institutions	DPRIED4 = 207.1 + 0.33DPCI - 0.004DPRFTE4 - 4363.3ININCR (1.82) (1.63) (-2.17) (-3.48)	0.474	2.26	AR1	0.521 (2.82)	1968-69 to 1995-96

[1]For an explanation of the Durbin-Watson statistic, see J. Johnston, *Econometric Methods*, New York: McGraw-Hill, 1972, pages 251-252.

[2]AR1 indicates an estimation procedure for correcting the problem of first-order autocorrelation. OLS indicates Ordinary Least Squares. For a general discussion of the problem of the autocorrelation, and the method used to forecast in the presence of autocorrelation, see G. Judge, W. Hill, R. Griffiths, H. Lutkepohl, and T. Lee, *The Theory and Practice of Econometrics*, New York: John Wiley and Sons, 1985, pages 315- 318.

Where:

DPUTCUR4 = Change from the previous year in current-fund expenditures per student in full-time-equivalent (FTE) enrollment in public 4-year institutions in constant dollars

DPUTCUR2 = Change from the previous year in current-fund expenditures per student in FTE enrollment in public 2-year institutions in constant 1982-84 dollars

DPRTCUR4 = Change from the previous year in current-fund expenditures per student in FTE enrollment in private 4-year institutions in constant 1982-84 dollars

DPUED4 = Change from the previous year in educational and general expenditures per student in FTE enrollment in public 4-year institutions in constant 1982-84 dollars

DPUED2 = Change from the previous year in educational and general expenditures per student in FTE enrollment in public 2-year institutions in constant 1982-84 dollars

DPRIED4 = Change in educational and general expenditures per student in FTE enrollment in private 4-year institutions in constant 1982-84 dollars

DSTREV1 = Change from the previous year in the sum of personal tax and nontax receipts to state and local governments and indirect business taxes and tax accruals,

DSTREV1 = Change from the previous year in the sum of personal tax and nontax receipts to state and local governments and indirect business taxes and tax accruals, excluding property taxes, to state and local governments, per capita, in constant 1982-84 dollars lagged one year

DPCI = Change from the previous year in disposable income per capita in 1992 dollars

DPUFTE4 = Change from the previous year in FTE enrollment in public 4-year institutions in thousands of students

DPUFTE2 = Change from the previous year in FTE enrollment in public 2-year institutions in thousands of students

DPRFTE4 = Change from the previous year in FTE enrollment in private 4-year institutions to the population in thousands of students

DUMMY = Dummy variable equaling 1 when the inflation rate is greater than 8 percent and 0 otherwise

ININCR = Rate of change in the inflation rate measured by the Consumer Price Index

NOTE: R^2 indicates the coefficient of determination. Numbers in parentheses are t-statistics.

SOURCE : U.S. Department of Education, National Center for Education Statistics, Higher Education Expenditure Models.

(This table was prepared March 2000.)

Table A6.2.—Mean absolute percentage errors by lead time for current-fund expenditures and educational and general expenditures in constant dollars in public and private institutions of higher education, by type

Lead Time (years)	Mean absolute percentage errors								
		Public					Private		
	Total	Total	4-year		2-year		Total	4-year	
			Total	Per student in FTE	Total	Per student in FTE		Total	Per student in FTE
Current-fund expenditures									
Six editions[1]									
One	0.4%	0.5%	0.7%	0.8%	1.4%	1.3%	0.5%	0.6%	0.5%
Two	0.5%	0.6%	0.6%	1.8%	4.3%	2.3%	1.2%	1.2%	3.4%
Three	0.9%	0.7%	1.7%	2.5%	4.9%	4.1%	1.3%	1.3%	2.9%
Four	1.8%	1.8%	3.0%	2.1%	3.6%	3.2%	1.7%	1.8%	1.1%
Five	2.2%	2.3%	3.4%	0.6%	3.2%	3.0%	2.1%	2.0%	3.4%
Six	3.9%	4.8%	5.9%	1.8%	0.4%	2.3%	2.5%	2.4%	4.2%
Seven editions[2]									
One	0.9%	0.8%	1.1%	1.2%	1.5%	1.4%	1.2%	1.2%	1.2%
Two	1.0%	0.6%	0.9%	1.8%	4.5%	2.8%	2.3%	2.3%	4.1%
Three	1.2%	0.6%	1.6%	2.3%	4.8%	4.5%	2.4%	2.4%	3.2%
Four	2.7%	2.2%	3.4%	1.9%	2.9%	4.1%	3.6%	3.6%	2.6%
Five	3.6%	3.0%	4.0%	0.6%	2.2%	4.4%	4.8%	4.8%	4.8%
Six	5.4%	4.6%	5.6%	1.3%	0.6%	9.6%	6.7%	6.7%	5.0%
Seven	6.8%	4.9%	6.1%	1.0%	0.5%	21.4%	10.0%	9.9%	1.7%
Eight	7.1%	5.3%	6.7%	1.0%	0.7%	19.7%	9.9%	9.7%	0.7%
Nine	7.6%	6.3%	8.1%	0.0%	2.0%	21.2%	9.9%	9.7%	2.9%
Ten	6.3%	4.7%	6.5%	2.1%	3.7%	21.4%	9.0%	9.0%	5.4%
Educational and general expenditures									
Six editions[1]									
One	0.3%	0.4%	0.8%	1.0%	1.6%	1.5%	0.8%	0.8%	0.8%
Two	0.7%	0.5%	0.9%	1.9%	4.9%	2.7%	1.6%	1.8%	2.0%
Three	0.6%	0.3%	1.8%	2.4%	5.7%	4.6%	2.2%	2.2%	2.2%
Four	0.5%	1.5%	3.1%	2.5%	4.3%	3.9%	2.9%	3.0%	3.8%
Five	0.5%	2.7%	4.4%	1.5%	3.6%	3.0%	4.3%	4.6%	3.3%
Six	1.1%	5.3%	6.9%	2.7%	0.7%	2.1%	6.1%	6.4%	4.7%
Seven editions[2]									
One	0.8%	0.7%	1.2%	1.3%	1.7%	1.6%	1.6%	1.6%	1.6%
Two	1.1%	0.5%	1.1%	1.9%	5.0%	3.1%	2.9%	2.9%	3.1%
Three	1.0%	0.2%	1.6%	2.2%	5.4%	5.0%	3.3%	3.3%	2.8%
Four	1.9%	2.0%	3.4%	2.3%	3.5%	4.7%	4.9%	5.0%	5.0%
Five	2.5%	3.0%	4.4%	1.1%	2.5%	4.5%	6.9%	7.1%	5.4%
Six	3.7%	4.0%	5.1%	2.7%	0.5%	9.7%	9.4%	9.6%	6.2%
Seven	6.1%	2.9%	3.9%	3.4%	0.7%	21.6%	11.8%	11.6%	3.6%
Eight	6.4%	3.1%	4.1%	3.7%	0.7%	19.7%	12.4%	12.1%	2.0%
Nine	7.1%	3.9%	5.4%	2.9%	2.0%	21.2%	12.8%	12.7%	0.5%
Ten	6.4%	2.7%	4.4%	4.4%	3.5%	21.3%	12.7%	12.7%	1.0%

[1]*Projections of Education Statistics to 2003* , *Projections of Education Statistics to 2004* , *Projections of Education Statistics to 2005* , *Projections of Education Statistics to 2006* , *Projections of Education Statistics to 2007, and Projections of Education Statistics to 2008* .

[2]*Projections of Education Statistics to 2000* , *Projections of Education Statistics to 2003* , *Projections of Education Statistics to 2004* , *Projections of Education Statistics to 2005* , *Projections of Education Statistics to 2006, Projections of Education Statistics to 2007, and Projections of Education Statistics to 2008* .

The projections presented in the *Projections of Education Statistics to 2000* were calculated using significantly different models than those presented in later editions, including this one.

SOURCES: U.S. Department of Education, National Center for Education Statistics, *Projections of Education Statistics,* various issues. (This table was prepared April 2000.)

Appendix B

Supplementary Tables

Table B1.—Annual number of births (U.S. Census projections, Middle Series): 1950 to 2010

(In thousands)

Calendar Year	Number of Births
1950	3,645
1951	3,845
1952	3,933
1953	3,989
1954	4,102
1955	4,128
1956	4,244
1957	4,332
1958	4,279
1959	4,313
1960	4,307
1961	4,317
1962	4,213
1963	4,142
1964	4,070
1965	3,801
1966	3,642
1967	3,555
1968	3,535
1969	3,626
1970	3,739
1971	3,556
1972	3,258
1973	3,137
1974	3,160
1975	3,144
1976	3,168
1977	3,327
1978	3,333
1979	3,494
1980	3,612
1981	3,629

Table B1.—Annual number of births (U.S. Census projections, Middle Series): 1950 to 2010—Continued

(In thousands)

Calendar Year	Number of Births
1982	3,681
1983	3,639
1984	3,669
1985	3,761
1986	3,757
1987	3,809
1988	3,910
1989	4,041
1990	4,158
1991	4,111
1992	4,065
1993	4,000
1994	3,953
1995	3,900
1996	3,891
1997	3,881
1998	3,944
	Projected
1999	3,900
2000	3,914
2001	3,932
2002	3,953
2003	3,978
2004	4,009
2005	4,045
2006	4,086
2007	4,133
2008	4,183
2009	4,234
2010	4,283

NOTE: Some data have been revised from previously published figures.
SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared March 2000.)

Table B2.—Preprimary school-age populations (U.S. Census projections, Middle Series): 1985 to 2010

(In thousands)

Year (July 1)	3 years old	4 years old	5 years old	3-5 years old
1985	3,566	3,568	3,518	10,652
1986	3,579	3,610	3,568	10,757
1987	3,508	3,623	3,610	10,741
1988	3,619	3,556	3,627	10,802
1989	3,646	3,669	3,559	10,874
1990	3,658	3,696	3,678	11,032
1991	3,714	3,710	3,694	11,118
1992	3,807	3,769	3,710	11,286
1993	3,964	3,867	3,772	11,603
1994	3,990	4,023	3,867	11,880
1995	3,963	4,049	4,023	12,035
1996	3,887	4,022	4,049	11,958
1997	3,838	3,948	4,024	11,810
1998	3,797	3,895	3,948	11,640
Projected				
1999	3,755	3,853	3,895	11,503
2000	3,763	3,810	3,854	11,427
2001	3,762	3,819	3,811	11,392
2002	3,765	3,818	3,820	11,403
2003	3,775	3,821	3,820	11,416
2004	3,788	3,830	3,821	11,439
2005	3,806	3,845	3,831	11,482
2006	3,827	3,862	3,845	11,534
2007	3,852	3,884	3,862	11,598
2008	3,883	3,909	3,883	11,675
2009	3,919	3,940	3,908	11,767
2010	3,961	3,975	3,939	11,875

NOTE: Some data have been revised from previously published figures. Because of rounding, details may not add to totals.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared March 2000.)

Table B3.—School-age populations (U.S. Census projections, Middle Series), ages 5, 6, 5-13, and 14-17 years: 1985 to 2010

(In thousands)

Year (July 1)	5 years old	6 years old	5-13 years old	14-17 years old
1985	3,518	3,399	29,893	14,888
1986	3,568	3,518	30,078	14,825
1987	3,610	3,568	30,501	14,503
1988	3,627	3,611	31,030	14,023
1989	3,559	3,625	31,412	13,535
1990	3,678	3,560	31,998	13,320
1991	3,694	3,674	32,465	13,451
1992	3,710	3,692	32,936	13,701
1993	3,772	3,712	33,377	13,986
1994	3,867	3,770	33,707	14,489
1995	4,023	3,865	34,187	14,825
1996	4,049	4,019	34,598	15,210
1997	4,024	4,047	34,996	15,494
1998	3,948	4,020	35,387	15,518
		Projected		
1999	3,895	3,944	35,612	15,660
2000	3,854	3,892	35,775	15,734
2001	3,811	3,851	35,885	15,821
2002	3,820	3,809	35,941	16,047
2003	3,820	3,818	35,904	16,247
2004	3,821	3,817	35,697	16,580
2005	3,831	3,819	35,473	16,931
2006	3,845	3,828	35,281	17,188
2007	3,862	3,841	35,186	17,268
2008	3,883	3,858	35,164	17,132
2009	3,908	3,879	35,207	16,915
2010	3,939	3,904	35,322	16,681

NOTE: Some data have been revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports* , Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared March 2000.)

Table B4.—College-age populations (U.S. Census projections, Middle Series), ages 18, 18-24, 25-29, 30-34, and 35-44 years: 1985 to 2010

(In thousands)

Year (July 1)	18 years old	18-24 years old	25-29 years old	30-34 years old	35-44 years old
1985	3,686	29,152	21,804	20,102	31,766
1986	3,623	28,468	22,018	20,552	33,081
1987	3,704	27,931	21,982	21,058	34,299
1988	3,803	27,584	21,869	21,470	35,258
1989	3,888	27,378	21,690	21,759	36,494
1990	3,605	27,038	21,357	21,994	37,857
1991	3,396	26,562	20,830	22,241	39,371
1992	3,330	26,115	20,223	22,307	39,970
1993	3,421	25,864	19,641	22,286	40,873
1994	3,383	25,509	19,170	22,187	41,747
1995	3,542	25,209	18,962	21,875	42,605
1996	3,579	24,937	18,990	21,359	43,412
1997	3,695	25,068	18,873	20,780	44,058
1998	3,881	25,569	18,648	20,232	44,573
			Projected		
1999	3,879	26,131	18,296	19,800	44,896
2000	3,967	26,691	17,919	19,625	44,947
2001	3,971	27,282	17,482	19,683	44,746
2002	3,901	27,643	17,444	19,580	44,277
2003	4,022	28,077	17,622	19,360	43,718
2004	4,042	28,416	17,974	19,011	43,221
2005	4,058	28,593	18,409	18,627	42,769
2006	4,117	28,817	18,875	18,175	42,337
2007	4,211	29,054	19,265	18,124	41,652
2008	4,369	29,441	19,618	18,292	40,859
2009	4,395	29,926	19,801	18,625	40,065
2010	4,363	30,256	19,907	19,046	39,495

NOTE: Some data have been revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, *Current Population Reports*, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000. (This table was prepared March 2000.)

Table B5.—Average daily attendance (ADA) in public elementary and secondary schools, change in ADA, the population, and ADA as a proportion of the population: 1984-85 to 2009-10

(In thousands)

Year ending	ADA[1] (in thousands)	Change in ADA	Population (in millions)	ADA as a ratio of the population
1985	36,404	41,283	236.3	0.154
1986	36,523	118,842	238.5	0.153
1987	36,864	340,764	240.7	0.153
1988	37,051	186,840	242.8	0.153
1989	37,268	217,365	245.0	0.152
1990	37,799	531,224	247.3	0.153
1991	38,427	627,247	249.9	0.154
1992	38,961	534,240	252.6	0.154
1993	39,570	609,679	255.4	0.155
1994	40,146	575,931	258.1	0.156
1995	40,721	574,370	260.6	0.156
1996	41,502	780,833	263.0	0.158
1997	42,262	760,380	265.5	0.159
1998	42,855	592,636	268.0	0.160
		Projected		
1999	43,127	272,223	270.6	0.159
2000	43,383	256,531	273.1	0.159
2001	43,582	198,748	275.6	0.158
2002	43,720	138,312	278.1	0.157
2003	43,832	111,980	280.6	0.156
2004	43,903	70,644	283.1	0.155
2005	43,962	58,812	285.5	0.154
2006	43,998	36,038	288.0	0.153
2007	43,977	-21,247	290.4	0.151
2008	43,896	-80,411	292.8	0.150
2009	43,760	-136,672	295.3	0.148
2010	43,659	-100,927	297.7	0.147

[1]Projections of average daily attendance were made by multiplying the forecasts for enrollment reported in chapter 1 by the average value of the ratio of average daily attendance to the enrollment from 1986 to 1995, approximately 0.93 percent.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: U.S. Department of Commerce, Bureau of the Census, Current Population Reports, Series P-25, Nos. 1092, 1095, and "National Population Estimates," June 1999, and "Annual Projections of the Total Resident Population: 1999 to 2100," January 2000; U.S. Department of Education, National Center for Education Statistics, Statistics of State Schools Systems; Common Core of Data survey; and Elementary and Secondary Average Daily Attendance Model.

(This table was prepared May 2000.)

Table B6.—Macro-economic measures of the economy, with alternative projections: 1984–85 to 2009–10

Year ending	Disposable income per capita[1]	Education revenue receipts from state source per capita[2]	Consumer Price Index	Rate of change for the inflation rate
1985	$17,201	$442	0.642	0.059
1986	17,464	467	0.661	-0.259
1987	17,674	485	0.676	-0.231
1988	18,162	491	0.704	0.859
1989	18,671	509	0.736	0.100
1990	18,873	515	0.771	0.046
1991	18,895	518	0.814	0.148
1992	19,098	513	0.840	-0.419
1993	19,328	513	0.866	-0.023
1994	19,436	512	0.889	-0.158
1995	19,856	536	0.914	0.087
1996	20,101	553	0.939	-0.039
1997	20,554	571	0.966	0.034
1998	21,152	598	0.983	-0.368
		Middle alternative projections		
1999	21,832	611	1.000	-0.032
2000	22,483	628	1.025	0.420
2001	23,076	644	1.047	-0.113
2002	23,635	647	1.072	0.073
2003	24,068	644	1.099	0.108
2004	24,530	644	1.129	0.027
2005	25,104	655	1.158	-0.014
2006	25,760	667	1.188	-0.042
2007	26,457	674	1.218	0.003
2008	27,051	677	1.249	0.028
2009	27,626	678	1.282	0.015
2010	28,206	681	1.316	0.014
		Low alternative projections		
1999	21,832	611	1.000	-0.032
2000	22,481	628	1.025	0.423
2001	23,026	643	1.048	-0.073
2002	23,301	643	1.074	0.100
2003	23,411	632	1.103	0.055
2004	23,632	631	1.130	-0.066
2005	23,996	640	1.156	-0.098
2006	24,418	645	1.179	-0.109
2007	24,904	648	1.201	-0.065
2008	25,308	648	1.222	-0.031
2009	25,721	643	1.244	-0.033
2010	26,178	643	1.265	0.000
		High alternative projections		
1999	21,832	611	1.000	-0.032
2000	22,497	628	1.025	0.419
2001	23,187	644	1.046	-0.153
2002	23,952	651	1.066	-0.083
2003	24,684	651	1.085	-0.078
2004	25,498	656	1.101	-0.159
2005	26,440	672	1.114	-0.203
2006	27,459	690	1.124	-0.268
2007	28,491	702	1.131	-0.189
2008	29,383	708	1.139	-0.071
2009	30,205	714	1.146	-0.002
2010	30,998	720	1.154	0.059

[1]In 1998–99 dollars based on the price deflator for personal consumption expenditures, Bureau of Labor Statistics, U.S. Department of Labor.

[2]In 1998–99 dollars based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Statistics of State School Systems; Common Core of Data survey; Early Estimates survey; and Revenue Receipts from State Sources Model; Standard & Poor's DRI, "U.S. Quarterly Model," and National Education Association, *Estimates School Statistics*. (Latest edition 2000. Copyright 1999 by the National Education Association. All rights reserved.) (This table was prepared May 2000.)

Table B7.—Measures of state and local government revenues, with alternative projections: 1984–85 to 2009–10

Year ending	Personal tax and nontax payments per capita*	Indirect business taxes and tax accruals per capita*	Tax and nontax payments per capita*
1985	$572	$1,068	$1,640
1986	593	1,117	1,711
1987	621	1,134	1,755
1988	650	1,150	1,800
1989	647	1,154	1,801
1990	692	1,158	1,850
1991	685	1,139	1,825
1992	702	1,153	1,855
1993	725	1,180	1,905
1994	736	1,224	1,960
1995	752	1,251	2,003
1996	774	1,269	2,043
1997	798	1,287	2,085
1998	846	1,327	2,173
		Middle alternative projections	
1999	897	1,388	2,285
2000	922	1,445	2,368
2001	941	1,482	2,423
2002	942	1,516	2,458
2003	946	1,555	2,502
2004	975	1,595	2,570
2005	1,007	1,642	2,649
2006	1,033	1,698	2,731
2007	1,049	1,747	2,796
2008	1,063	1,790	2,853
2009	1,080	1,829	2,909
2010	1,098	1,868	2,966
		Low alternative projections	
1999	897	1,388	2,285
2000	922	1,445	2,367
2001	933	1,462	2,395
2002	915	1,464	2,379
2003	914	1,474	2,388
2004	940	1,486	2,426
2005	957	1,512	2,468
2006	972	1,546	2,517
2007	982	1,572	2,554
2008	981	1,599	2,580
2009	990	1,626	2,615
2010	998	1,654	2,652
		High alternative projections	
1999	897	1,388	2,285
2000	922	1,447	2,369
2001	945	1,495	2,440
2002	952	1,550	2,503
2003	966	1,619	2,585
2004	1,005	1,694	2,699
2005	1,049	1,778	2,827
2006	1,089	1,869	2,958
2007	1,119	1,950	3,069
2008	1,146	2,020	3,166
2009	1,174	2,081	3,256
2010	1,204	2,140	3,345

*In 1998–99 dollars based on the Consumer Price Index for all urban consumers, Bureau of Labor Statistics, U.S. Department of Labor.

NOTE: Calculations were made using unrounded numbers. Some data have been revised from previously published figures.

SOURCE: Standard & Poor's DRI, "U.S. Quarterly Model" (This table was prepared May 2000.)

Appendix C

Data Sources

Sources and Comparability of Data

The information in this report was obtained from many sources, including Federal and state agencies, private research organizations, and professional associations. The data were collected by many methods, including surveys of a universe (such as all colleges) or of a sample, and compilations of administrative records. Care should be used when comparing data from different sources. Differences in procedures, such as timing, phrasing of questions, and interviewer training mean that the results from the different sources are not strictly comparable. More extensive documentation of one survey's procedures than of another's does not imply more problems with the data, only that more information is available.

Accuracy of Data

The accuracy of any statistic is determined by the joint effects of “sampling” and “nonsampling” errors. Estimates based on a sample will differ from the figures that would have been obtained if a complete census had been taken using the same survey instruments, instructions, and procedures. Besides sampling errors, both surveys, universe and sample, are subject to errors of design, reporting, processing, and errors due to nonresponse. To the extent possible, these nonsampling errors are kept to a minimum by methods built into the survey procedures. In general, however, the effects of nonsampling errors are more difficult to gauge than those produced by sampling variability.

Sampling Errors

The standard error is the primary measure of sampling variability. It provides a specific range--with a stated confidence--within which a given estimate would lie if a complete census had been conducted. The chances that a complete census would differ from the sample by less than the standard error are about 68 out of 100. The chances that the difference would be less than 1.65 times the standard error are about 90 out of 100. The chances that the difference would be less than 1.96 times the standard error are about 95 out of 100. The chances that it would be less than 2.58 times as large are about 99 out of 100.

The standard error can help assess how valid a comparison between two estimates might be. The standard error of a difference between two sample estimates that are uncorrelated is approximately equal to the square root of the sum of the squared standard errors of the estimates. The standard error (se) of the difference between sample estimate “a” and sample estimate “b” is:

$$se_{a\text{-}b} = (se_a^2 + se_b^2)^{1/2}$$

Note that most of the standard errors in subsequent sections and in the original documents are approximations. That is, to derive estimates of standard errors that would be applicable to a wide variety of items and could be prepared at a moderate cost, a number of approximations were required. As a result, most of the standard errors presented provide a general order of magnitude rather than the exact standard error for any specific item.

Nonsampling Errors

Both universe and sample surveys are subject to nonsampling errors. Nonsampling errors are of two kinds--random and nonrandom. Random nonsampling errors may arise when respondents or interviewers interpret questions differently, when respondents must estimate values, or when coders, keyers, and other processors handle answers differently. Nonrandom nonsampling errors result from total nonresponse (no usable data obtained for a sampled unit), partial or item nonresponse (only a portion of a response may be usable), inability or unwillingness on the part of respondents to provide information, difficulty interpreting questions, mistakes in recording or keying data, errors of collection or processing, and overcoverage or undercoverage of the target universe. Random nonresponse errors usually, but not always, result in an understatement of sampling errors and thus an overstatement of the precision of survey estimates. Because estimating the magnitude of nonsampling errors would require special experiments or access to independent data, these magnitudes are seldom available.

To compensate for suspected nonrandom errors, adjustments of the sample estimates are often made. For example, adjustments are frequently made for nonresponse, both total and partial. An adjustment made for either type of nonresponse is often referred to as an imputation, that is, substitution of the "average" questionnaire response for the nonresponse. Imputations are usually made separately within various groups of sample members that have similar survey characteristics. Imputation for item nonresponse is usually made by substituting for a missing item the response to that item of a respondent having characteristics that are similar to those of the nonrespondent.

Although the magnitude of nonsampling errors in the data used in this *Projections of Education Statistics* is frequently unknown, idiosyncrasies that have been identified are noted on the appropriate tables.

Federal Agency Sources

National Center for Education Statistics (NCES)

Common Core of Data

NCES uses the Common Core of Data (CCD) survey to acquire and maintain statistical data on the 50 states, the District of Columbia, and the outlying areas from the universe of state-level education agencies. Information about staff and students is collected annually at the school, LEA (local education agency or school district), and state levels. Information about revenues and expenditures is also collected at the state and school district level.

Data are collected for a particular school year (July 1 through June 30) via survey instruments sent to the states by October 15 of the subsequent school year. States have 2 years in which to modify the data originally submitted.

Since the CCD is a universe survey, the CCD information presented in this edition *of Projections of Education Statistics* is not subject to sampling errors. However, nonsampling errors could come from two sources--nonreturn and inaccurate reporting. Almost all of the states submit the CCD survey instruments each year, but submissions are sometimes incomplete or too late for publication.

Understandably, when 57 education agencies compile and submit data for over 85,000 public schools and approximately 15,000 local school districts, misreporting can occur. Typically, this results from varying interpretation of NCES definitions and differing recordkeeping systems. NCES attempts to minimize these errors by working closely with the Council of Chief State School Officers (CCSSO).

The state education agencies report data to NCES from data collected and edited in their regular reporting cycles. NCES encourages the agencies to incorporate into their own survey systems the NCES items they do not already collect so that those items will also be available for the subsequent CCD survey. Over time, this has meant fewer missing data cells in each state's response, reducing the need to impute data.

NCES subjects data from the education agencies to a comprehensive edit. Where data are determined to be inconsistent, missing, or out of range, NCES contacts the education agencies for verification. NCES-prepared state summary forms are returned to the state education agencies for verification. States are also given an opportunity to revise their state-level aggregates from the previous survey cycle.

Questions concerning the Common Core of Data can be directed to:

John Sietsema
Elementary/Secondary and Libraries Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006

Private School Universe Survey, 1995-96. The Private School Survey (PSS) is designed to collect data from all private schools in the 50 states and the District of Columbia. This survey was conducted in 1995-96 by the U.S. Bureau of the Census for the National Center for Education Statistics (NCES). The counts presented are estimates derived from an area frame as well as a census of lists; an estimate of the total undercount is also given.

Since 1983, NCES has used a dual frame approach for building its private school universe. The dual frame consists of a list frame and an area frame. The list building component was the primary means for improving coverage of private schools. To identify schools that may have been overlooked in the list building component, an area frame component was also included. The combination of the universe list and additional schools identified in the area search comprised schools in the 1995-96 Private School Survey. The basis of the 1995-96 list frame was the 1993-94 PSS.

Beginning in 1995, NCES also collected data from schools for which kindergarten is the highest grade. Those 1995-96 PSS schools meeting the pre-1995 definition of a private school (including any of grades 1 through 12) are referred to as traditional schools. Schools with kindergarten, but no grade higher than kindergarten, are referred to as kindergarten terminal (k-terminal) schools. NCES requested and collected membership lists from 26 private school associations and religious denominations. The associations were asked to include schools that met the new PSS school definition when they provided lists. The 50 states and the District of Columbia were asked to provide lists of private schools meeting the traditional definition of a school, as well as separtae lists of programs which might include a kindergarten. These requests were made with the traditional state sources (the education departments) and also with other departments, such as health or recreation. As a result of these efforts, approximately 5,525 schools were added in 1995, for a total of 31,698 traditional schools on the private school universe list.

Using primary sampling units (PSUs), the 1995-96 PSS area frame was designed to produce 50 percent overlap with the previous PSS. By maintaining a 50 percent overlap of PSUs, the reliability of estimates of change was maintained at a reasonable level. The United States was divided into 2,054 PSUs, each consisting of a single county, independent city, or cluster of geographically contiguous areas. A minimum of two PSUs were allocated to each of the 16 strata (32 PSUs). An additional 26 PSUs were allocated to the 16 strata to more nearly approximate a uniform sampling fraction of PSUs from each stratum.

The strata were defined the same way as in the 1993-94 PSS area frame design: (a) four Census regions (Northeast, Midwest, South, West), (b) metro/nonmetro status (two levels) and (c) whether the PSU's percent private school enrollment exceeded the median percent private enrollment of the other PSUs in the census region/metro status strata (two levels - using 1990 Census data).

A total of 124 distinct PSUs were in the area sample. Within each of the 124 PSUs, the Census Bureau attempted to find all eligible private schools. A block-by-block listing of all private schools in a sample of PSUs was not attempted. Rather, regional office field staff created the frame by using such sources as yellow pages, non-Roman Catholic religious institutions, local education agencies, chambers of commerce, and local government offices. (Roman Catholic religious institutions were not contacted because their lists are usually current.) Once the area search lists were constructed, they were matched with the NCES private school universe list. Schools that did not match the universe list were considered part of the area frame.

The data collection phase consisted of two stages: A mailout/mailback stage and a telephone follow-up stage. The Census Bureau mailed PSS questionnaires to a total of 40,866 private schools on October 13, 1995. One week after the initial mailout, a postcard was sent reminding the school staff to complete and return the questionnaire. On November 22, 1995, a second questionnaire was sent to the schools not responding to the first. A reminder postcard was sent one week after the second mailout. The return rate for first mailout was 46 percent while the return for the second mailout was 67 percent.

On February 29, 1996, the Census Bureau began telephone interviewing for schools not responding to the mail questionnaire. An additional 4,730 schools from the area frame operation were added to the workload at this time. Interviewing took place at the Census Bureau's two Computer Assisted Telephone Interviewing (CATI) facilities located in Hagerstown, MD and Tucson, AZ. CATI follow-up continued through May 22, 1996. Additional follow-up was conducted in the Census Bureau's 12 Regional Offices for the 1,474 schools that could not be contacted by telephone. The final return rate was 99 percent.

Questions concerning the Private School Universe Survey can be directed to:

Stephen P. Broughman
Elementary/Secondary and Libraries Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006

Private School Early Estimates System: 1992-93. Early in September 1992, advance questionnaires were mailed to a national probability sample of 1,167 private elementary and secondary schools. Telephone collection of the data began in early October and was completed in mid-October. The telephone data collection used Computer Assisted Telephone Interviewing (CATI) technology to collect the data and perform preliminary edits. The overall response rate was 93.3 percent: 1,045 of the 1,120 eligible schools. Some 47 of the original 1,167 schools in the sample were determined to be out-of-scope. After adjusting for out-of-scope schools, the weighted estimate of private schools is 26,011.

The sampling frame used for the Private School Early Estimates Survey was the 1991-92 NCES Private School Survey (PSS). This survey collected information on the number of teachers and students in private schools, by school religious orientation and level as well as actual and projected counts of high school graduates. The PSS, and therefore the early estimates survey, uses two nonoverlapping frames: the list frame of approximately 24,000 eligible schools (the universe list), and an area frame developed by the Census Bureau, consisting of 355 schools identified in 124 sampled geographic areas (Primary Sampling Units or PSUs). The area frame is constructed from a sample survey designed to capture those schools not included in the universe list and is repeated every 2 years. The 355 schools identified in the sampled areas are weighted to a national estimate of the number of private schools not included in the universe list. This weighted number is then added to the universe count to produce an estimate of the total number of private schools in the United States.

For the early estimates, the list frame was stratified by level of school (elementary, secondary, and combined) and religious orientation (Catholic, other religious, and nonsectarian). Within strata, schools were further sorted by Census region (Northeast, Midwest, South, and West), by urbanicity (urban, suburban, and rural) within region, and by student membership size within urbanicity. Each school in the sorted frame was assigned a sampling measure of size equal to the square root of student membership.

The area frame was stratified by level of school (elementary, secondary, and combined) and religious orientation (Catholic, other religious, and nonsectarian). Within strata, schools were further sorted by FIPS (Federal Information Processing Standards) state code, by PSU within state, and by student membership within PSU. Samples were selected with probabilities proportionate to size from each stratum. The measure of size used for this purpose was the square root of student membership multiplied by the inverse of the probability of selection of the PSU in which the school is located.

The estimation procedure is a two-step process. The first step is to produce estimates based on the NCES frame for private schools (1991-92 PSS). These estimates are adjusted for total school nonresponse, as well as item nonresponse. The second step is to update the PSS-based estimates, using the data collected in the 1992 Early Estimates Survey (EES). This EES update is a ratio estimate of the 1992 estimate from EES divided by the 1991 estimate based on the 1991 PSS data for the EES sample. The estimates in the tables are the PSS-based estimates times the EES update. The early estimates in this report incorporate the relevant estimates from the PSS and update them using data collected in the EES.

The private school early estimates are based on a sample; these estimates may differ somewhat from figures that would have been obtained if a complete census of private schools had been taken using the same questionnaire and procedures. The standard error indicates the magnitude of the sampling error, the variability due to sampling when estimating a statistic. It indicates how much variance there is in the population of possible estimates of a parameter for a given sample size. Standard errors can be used as a measure of the precision expected from a particular sample. If all possible samples were surveyed under similar conditions, intervals of 1.96 standard errors below to 1.96 standard errors above a particular statistic would include the true population parameter being estimated in about 95 percent of the samples. This is a 95 percent confidence interval. For example, for the ratio of private school pupils to private school teachers in 1992-93, the estimate for all private schools is 14.9 and the standard error is 0.2. The 95 percent confidence interval for this statistic extends from 14.9 - (0.2 times 1.96) to 14.9 + (0.2 times 1.96) or from 14.5 to 15.3. The standard error for the 4,964,258 students in private schools is 116,612. The 95 percent confidence interval for this statistic extends from 4,735,698 to 5,192,818.

Estimates of standard errors were computed using a variance estimation procedure for complex sample survey data known as balanced repeated replication (BRR)--a technique that splits the sample into several different half-samples. Weight-adjusted estimates are computed from the half-samples. Finally, the standard error of the half-sample estimates is used as an approximation for the full-sample standard error. The standard errors for private school early estimates for school years 1991-92 and 1992-93 are shown in the table below.

Students (1992-93)	**Teachers (1992-93)**	**Graduates (1991-92)**
116,612.2	8,714.8	6,071.4

Survey estimates are also subject to errors of reporting and errors made in the collection and processing of the data. These errors, called nonsampling errors, can sometimes bias the data. While general sampling theory can be used to estimate the sampling variability of an estimate, nonsampling errors are not easy to measure and usually require either an experiment conducted as part of the data collection procedure or use of data external to the study.

Nonsampling errors may include such things as differences in the respondents' interpretation of the meaning of the questions, differences related to the particular time the survey was conducted, or errors in data preparation. The content of the survey was developed in consultation with representatives of private school associations attending NCES meetings for users and providers of private school data. The questionnaire and instructions were reviewed extensively by NCES staff. The CATI instrument provided on-line internal consistency checks (i.e., totals equal sum of parts) as well as consistency checks with 1991 data for the sample schools. Interviewers resolved discrepancies with the school during the course of the interview. Machine editing of the questionnaires was conducted to check the data for accuracy and consistency. Data inputs into the CATI system were transferred directly to data bases, avoiding potential keying errors.

Undercoverage in the list and area frames is another possible source of nonsampling error. The area frame was used to complement the list frame through the identification of schools missing from the list frame. The area frame represents approximately 10 percent of the total number of private schools. The 1991-92 list and area frame updates to the PSS were reflected in this year's early estimates, and so schools newly opened since 1989 are included in those new estimates.

Questions concerning the Private School Early Estimates System can be directed to:

Frank H. Johnson
Elementary/Secondary and Libraries Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006

Integrated Postsecondary Education Data System

The Integrated Postsecondary Education Data System (IPEDS) surveys all postsecondary institutions, including universities and colleges, as well as institutions offering technical and vocational education beyond the high school level. This survey, which began in 1986, replaces and supplements the Higher Education General Information Survey (HEGIS).

The IPEDS consists of several integrated components that obtain information on who provides postsecondary education (institutions), who participates in it and completes it (students), what programs are offered and what programs are completed, and both the human and financial resources involved in the provision of institutionally based postsecondary education. Specifically, these components include: institutional characteristics, including institutional activity; fall enrollment, including age and residence; completions; finance; staff; and salaries of full-time instructional faculty.

The higher education portion of this survey is a census of accredited 2- and 4-year colleges. Prior to 1993, data from the technical and vocational institutions were collected through a sample survey. Beginning in 1993, all data are gathered in a census of all postsecondary institutions. Thus, some portions of the earlier data will be subject to sampling and nonsampling errors, while some portions will be subject only to nonsampling errors.

Prior to the establishment of IPEDS in 1986, HEGIS acquired and maintained statistical data on the characteristics and operations of institutions of higher education. Implemented in 1966, HEGIS was an annual universe survey of institutions listed in the latest NCES *Education Directory, Colleges and Universities*.

The information presented in this report draws on IPEDS surveys that solicited information concerning institutional characteristics, enrollment, degrees, and finances. The higher education portion of this system is a census of accredited 2- and 4-year colleges. Since these surveys cover all institutions in the universe, the data are not subject to sampling error.

However, they are subject to nonsampling error, the sources of which vary with the survey instrument. Each survey will therefore be discussed separately. Information concerning the nonsampling error of the enrollment and degrees surveys is drawn extensively from the HEGIS Post-Survey Validation Study conducted in 1979.

Institutional Characteristics. This survey provides the basis for the universe of institutions presented in the *Directory of Postsecondary Institutions*. The universe comprised institutions that met certain accreditation criteria and offered at least a 1-year program of college-level studies leading toward a degree. All of these institutions were certified as eligible by the U.S. Department of Education's Division of Eligibility and Agency Evaluation. Each fall, institutions listed in the previous year's *Directory* were asked to update their information.

Fall Enrollment. This survey has been part of the IPEDS or HEGIS series since 1966. The enrollment survey response rate was relatively high; the 1997 response rate was 94.7 percent. Major sources of nonsampling error for this survey were classification problems, the unavailability of needed data, interpretation of definitions, the survey due date, and operational errors. Of these, the classification of students appears to have been the main source of error. Institutions had problems in correctly classifying first-time freshmen, other first-time students, and unclassified students for both full-time and part-time categories. These problems occurred most often at 2-year institutions (private and public) and private 4-year institutions. In the 1977-78 HEGIS validation studies, the classification problem led to an estimated overcount of 11,000 full-time students and an undercount of 19,000 part-time students. Although the ratio of error to the grand total was quite small (less than 1 percent), the percentage of errors was as high as 5 percent for detailed student levels and even higher at certain aggregation levels.

Beginning with fall 1986, the survey system was redesigned with the introduction of the Integrated Postsecondary Education Data System (IPEDS) (see above). The new survey system comprises all postsecondary institutions, but also maintains comparability with earlier surveys by allowing HEGIS institutions to be tabulated separately. The new system also provides for preliminary and revised data releases. This allows the Center flexibility to release early data sets while still maintaining a more accurate final data base.

Completions. This survey was part of the HEGIS series throughout its existence. However, the degree classification taxonomy was revised in 1970-71, 1982-83, and 1991-92. Collection of degree data has been maintained through the IPEDS system.

Though information from survey years 1970-71 through 1981-82 is directly comparable, care must be taken if information before or after that period is included in any field of study comparison. The nonresponse rate did not appear to be a significant source of nonsampling error for this survey. The return rate over the years was high, with the response rate for the 1996-97 survey at 94.3 percent. Because of the high return rate, nonsampling error caused by imputation was also minimal.

The major sources of nonsampling error for this survey were differences between the NCES program taxonomy and taxonomies used by the colleges, classification of double majors and double degrees, operational problems, and survey timing. In the 1979 HEGIS validation study, these sources of nonsampling were found to contribute to an error rate of 0.3 percent overreporting of bachelor's degrees and 1.3 percent overreporting of master's degrees. The differences, however, varied greatly among fields. Over 50 percent of the fields selected for the validation study had no errors identified. Categories of fields that had large differences were business and management, education, engineering, letters, and psychology. It was also shown that differences in proportion to the published figures were less than 1 percent for most of the selected fields that had some errors. Exceptions to these were: master's and doctor's programs in labor and industrial relations (20 percent and 8 percent); bachelor's and master's programs in art education (3 percent and 4 percent); bachelor's and doctor's programs in business and commerce, and in distributive education (5 percent and 9 percent); master's programs in philosophy (8 percent); and doctor's programs in psychology (11 percent).

Financial Statistics. This survey was part of the HEGIS series and has been continued under the IPEDS system. Changes were made in the financial survey instruments in fiscal years (FY) 1976, 1982, and 1987. The FY 76 survey instrument contained numerous revisions to earlier survey forms and made direct comparisons of line items very difficult. Beginning in FY 82, Pell Grant data were collected in Federal restricted grants and contracts revenues and restricted scholarships and fellowships expenditures. The introduction of the Integrated Postsecondary Education Data System (IPEDS) in the FY 87 survey included several important changes to the survey instrument and data processing procedures. While these changes were significant, considerable effort has been made to present only comparable information on trends in this report and to note inconsistencies. Finance tables for this publication have been adjusted by subtracting the largely duplicative Pell Grant amounts from the later data to maintain comparability with pre-FY 82 data.

Possible sources of nonsampling error in the financial statistics include nonresponse, imputation, and misclassification. The response rate has been about 85 to 90 percent for most of the years reported. The response rate for the FY 1997 survey was 90.5 percent.

Two general methods of imputation were used in HEGIS. If the prior years' data were available for a nonresponding institution, these data were inflated using the Higher Education Price Index and adjusted according to changes in enrollments. If there were no data for the previous four years, current data were used from peer institutions selected for location (state or region), control, level, and enrollment size of institution. In most cases, estimates for nonreporting institutions in IPEDS were made using data from peer institutions.

Beginning with FY 87, the new system (IPEDS) comprises all postsecondary institutions, but also maintains comparability with earlier surveys by allowing 2- and 4-year HEGIS institutions to be tabulated separately. The finance data tabulated for this publication reflect totals for the HEGIS or higher education institutions only.

To reduce reporting error, NCES used national standards for reporting finance statistics. These standards are contained in *College and University Business Administration: Administrative Services*

(1974 Edition) and the *Financial Accounting and Reporting Manual for Higher Education (1990 Edition)* published by the National Association of College and University Business Officers; *Audits of Colleges and Universities* (as amended August 31, 1974), by the American Institute of Certified Public Accountants; and *HEGIS Financial Reporting Guide* (1980), by NCES. Wherever possible, definitions and formats in the survey are consistent with those in these four accounting texts.

Questions concerning the surveys used as data sources for this report or other questions concerning HEGIS and IPEDS can be directed to:

Susan G. Broyles
Postsecondary Studies Division
National Center for Education Statistics
1990 K Street NW
Washington, DC 20006

Bureau of the Census

Current Population Survey

Current estimates of school enrollment, as well as social and economic characteristics of students, are based on data collected in the Census Bureau's monthly survey of about 60,000 households. The monthly Current Population Survey (CPS) sample consists of 729 areas comprising 1,973 counties, independent cities, and minor civil divisions throughout the 50 states and the District of Columbia. The sample was initially selected from the 1980 census files and is periodically updated to reflect new housing construction.

The monthly CPS deals primarily with labor force data for the civilian noninstitutional population (i.e., excluding military personnel and their families living on posts and inmates of institutions). In addition, in October of each year, supplemental questions are asked about highest grade completed, level of current enrollment, attendance status, number and types of courses, degree or certificate objective, and type of organization offering instruction for each member of the household.

The estimation procedure used for the monthly CPS data involves inflating weighted sample results to independent estimates of characteristics of the civilian noninstitutional population in the United States by age, sex, and race. These independent estimates are based on statistics from decennial censuses that include statistics on births, deaths, immigration and emigration, and statistics on the population in the armed services. Generalized standard error tables are in the *Current Population Reports*. The data are subject to both nonsampling and sampling errors.

More information is available in the *Current Population Reports*, Series P-20, or by contacting:

Education and Social Stratification Branch
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

School Enrollment. Each October, the Current Population Survey (CPS) includes supplemental questions on the enrollment status of the population 3 years old and over. The main sources of nonsampling variability in the responses to the supplement are those inherent in the survey instrument. The question concerning educational attainment may be sensitive for some respondents who may not want to acknowledge their lack of a high school diploma. The question of current enrollment may not be answered accurately for various reasons. Some respondents may not know current grade information for every student in the household, a problem especially prevalent for households with members in college or in nursery school. Confusion over college credits or hours taken by a student may make it difficult to determine the year in which the student is enrolled. Problems may occur with the definition of nursery school (a group or class organized to provide educational experiences for children) where respondents' interpretations of “educational experiences” vary.

Questions concerning the CPS “School Enrollment” survey may be directed to:

Education and Social Stratification Branch
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233

State population projections. These state population projections were prepared using a cohort-component method by which each component of population change--births, deaths, state-to-state migration flows, international in-migration, and international out-migration--was projected separately for each birth cohort by sex, race, and Hispanic origin. The basic framework was the same as in past Census Bureau projections.

Detailed components necessary to create the projections were obtained from vital statistics, administrative records, census data, and national projections.

The cohort-component method is based on the traditional demographic accounting system:

$$P_1 = P_0 + B - D + DIM - DOM + IIM - IOM$$

where:

P_1 = population at the end of the period

P_0 = population at the beginning of the period

B = births during the period

D = deaths during the period

DIM = domestic in-migration during the period

DOM = domestic out-migration during the period

IIM = international in-migration during the period

IOM = international out-migration during the period

To generate population projections with this model, the Census Bureau created separate data sets for each of these components. In general, the assumptions concerning the future levels of fertility, mortality, and international migration are consistent with the assumptions developed for the national population projections of the Census Bureau.

Once the data for each component were developed, it was a relatively straightforward process to apply the cohort-component method and produce the projections. For each projection year the base population for each state was disaggregated into eight race and Hispanic categories (non-Hispanic white; non-Hispanic black; non-Hispanic American Indian, Eskimo, and Aleut; non-Hispanic Asian and Pacific Islander; Hispanic white; Hispanic black; Hispanic American Indian, Eskimo, and Aleut; and Hispanic Asian and Pacific Islander), by sex, and single year of age (ages 0 to 85+). The next step was to survive each age-sex-race-ethnic group forward 1 year using the pertinent survival rate. The internal redistribution of the population was accomplished by applying the appropriate state-to-state migration rates to the survived population in each state. The projected out-migrants were subtracted from the state of origin and added to the state of destination (as in-migrants). Next, the appropriate number of immigrants from abroad were added to each group. The populations under age 1 were created by applying the appropriate age-race-ethnic-specific birth rates to females of childbearing age. The number of births by sex and race/ethnicity were survived forward and exposed to the appropriate migration rate to yield the population under age 1. The final results of the projection process were adjusted to be consistent with the national population projections by single years of age, sex, race, and Hispanic origin. The entire process was then repeated for each year of the projection.

More information is available in the Census Bureau Population Paper Listing 47 (PPL-47) and Current Population Report P25-1130. These reports may be obtained from:

Statistical Information Staff
Bureau of the Census
U.S. Department of Commerce
Washington, DC 20233
(301) 457-2422
INTERNET: http://www.census.gov

National population projections. The method used to produce projections of the United States population for future reference dates from a current base population reflects three fundamental principles. First, the projections are demographic. Future populations are derived from a base population through the projection of population change by its major demographic components, births, deaths, and migration. Second, the projection of the demographic components of change is driven by the composition of the population by age, sex, race, Hispanic origin, and nativity, and the way these variables determine the propensity to bear children, die, migrate to or from the United States. Third, the definition of the population with respect to who is included and the characteristics of included people remains the same throughout the projection period. We refer to these definitions collectively throughout the work as the "population universe." This concept embraces such issues as the inclusion or exclusion of people uncounted by a census, the rule defining residency in the United States, and the way we classify people by age, race, and Hispanic origin.

For more information, see "Methodology and Assumptions for the Population Projections of the United States: 1999 to 2100," Population Division Working Paper No. 38. This report is available on the INTERNET at http://www.census.gov.

Other Sources

National Education Association

Estimates of School Statistics

The National Education Association (NEA) reports teacher, revenue, and expenditure data in its annual publication, *Estimates of School Statistics*. Each year, NEA prepares regression-based estimates of financial and other education statistics and submits them to the states for verification. Generally, about 30 states adjust these estimates based on their own data. These preliminary data are published by NEA along with revised data from previous years. States are asked to revise previously submitted data as final figures become available. The most recent publication contains all changes reported to the NEA.

Additional information is available from:

National Education Association--Research
1201 16th Street NW
Washington, DC 20036

Standard and Poor's DRI

Standard and Poor's DRI provides an information system that includes more than 125 databases: simulation and planning models; regular publications and special studies; data retrieval and management systems; and access to experts on economic, financial, industrial, and market activities. One service is the DRI U.S. Annual Model Forecast Data Bank, which contains annual projections of the U.S. economic and financial conditions, including forecasts for the federal government, incomes, population, prices and wages, and state and local government, over a long-term (10 to 25-year) forecast period.

Additional information is available from:

Standard and Poor's DRI
24 Hartwell Avenue
Lexington, MA 02173

Appendix D

Glossary

Data Terms

Associate's degree: A degree granted for the successful completion of a subbaccalaureate program of studies, usually requiring at least 2 years (or the equivalent) of full-time college-level study. This term includes degrees granted in a cooperative or work-study program.

Average daily attendance (ADA): The aggregate attendance of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered days in session.

Average daily membership (ADM): The aggregate membership of a school during a reporting period (normally a school year) divided by the number of days school is in session during this period. Only days on which the pupils are under the guidance and direction of teachers should be considered as days in session. The average daily membership for groups of schools having varying lengths of terms is the average of the average daily memberships obtained for the individual schools.

Bachelor's degree: A degree granted for the successful completion of a baccalaureate program of studies, usually requiring at least 4 years (or the equivalent) of full-time college-level study. This term includes degrees granted in a cooperative or work-study program.

Classroom teacher: A staff member assigned the professional activities of instructing pupils in self-contained classes or courses, or in classroom situations. Usually expressed in full-time equivalents.

Cohort: A group of individuals that have a statistical factor in common, for example, year of birth.

College: A postsecondary school that offers a general or liberal arts education, usually leading to an associate, bachelor's, master's, doctor's, or first-professional degree. Junior colleges and community colleges are included in this term.

Constant dollars: Dollar amounts that have been adjusted by means of price and cost indexes to eliminate inflationary factors and allow direct comparison across years.

Consumer Price Index (CPI): This price index measures the average change in the cost of a fixed market basket of goods and services purchased by consumers.

Current dollars: Dollar amounts that have not been adjusted to compensate for inflation.

Current expenditures (elementary/secondary): The expenditures for operating local public schools, excluding capital outlay and interest on school debt. These expenditures include such items as salaries for school personnel, fixed charges, student transportation, school books and materials, and energy costs.

Current expenditures per pupil in average daily attendance: Current expenditures for the regular school term divided by the average daily attendance of full-time pupils (or full-time-equivalency of pupils) during the term. See also *current expenditures* and *average daily attendance*.

Current-fund expenditures (higher education): Money spent to meet current operating costs, including salaries, wages, utilities, student services, public services, research libraries, scholarships and fellowships, auxiliary enterprises, hospitals, and independent operations. Excludes loans, capital expenditures, and investments.

Current Population Survey: See Appendix C, Data Sources.

Disposable income: Current income received by persons less their contributions for social insurance, personal tax, and nontax payments. It is the income available to persons for spending and saving. Nontax payments include passport fees, fines and penalties, donations, and tuitions and fees paid to schools and hospitals operated mainly by the government. See also *personal income*.

Doctor's degree: An earned degree carrying the title of doctor. The Doctor of Philosophy degree (Ph.D.) is the highest academic degree and requires mastery within a field of knowledge and demonstrated ability to perform scholarly research. Other doctorates are awarded for fulfilling specialized requirements in professional fields, such as education (Ed.D.), musical arts (D.M.A.), business administration (D.B.A.), and engineering (D.Eng. or D.E.S.). Many doctor's degrees in both academic and professional fields require an earned master's degree as a prerequisite. First-professional degrees, such as M.D. and D.D.S., are not included under this heading.

Educational and general expenditures: The sum of current funds expenditures on instruction, research, public service, academic support, student services, institutional support, operation and maintenance of plant, and awards from restricted and unrestricted funds.

Elementary school: A school classified as elementary by state and local practice and composed of any span of grades not above grade 8. A preschool or kindergarten school is included under this heading only if it is an integral part of an elementary school or a regularly established school system.

Elementary and secondary schools: As used in this publication, includes only regular schools, that is, schools that are part of state and local school systems and also most private elementary and secondary schools, both religiously affiliated and nonsectarian. Schools not included in this term are subcollegiate departments of institutions of higher education, American residential schools for exceptional children, federal schools for Indians, and federal schools on military posts and other federal installations.

Enrollment: The number of students registered in a given school unit at a given time, generally in the fall of a year.

Expenditures: Charges incurred, whether paid or unpaid, that are presumed to benefit the current fiscal year. For elementary and secondary schools, these include all charges for current outlays plus capital outlays and interest on school debt. For institutions of higher education, these include current outlays plus capital outlays. For government, these include charges net of recoveries and other correcting transactions other than for retirement of debt, investment in securities, or extension of credit. Government expenditures include only external transactions, such as the provision of perquisites or other payments in kind. Aggregates for groups of governments exclude intergovernmental transactions.

Expenditures per pupil: Charges incurred for a particular period of time divided by a student unit of measure, such as average daily attendance or average daily membership.

First-professional degree: A degree that signifies both completion of the academic requirements for beginning practice in a given profession and a level of professional skill beyond that normally required for a bachelor's degree. This degree is based on a program requiring at least 2 academic years of work before entrance and a total of at least 6 academic years of work to complete the degree program, including both prior required college work and the professional program itself. By NCES definition, first-professional degrees are awarded in the fields of dentistry (D.D.S. or D.M.D.), medicine (M.D.), optometry (O.D.), osteopathic medicine (D.O.), pharmacy (D.Phar.), podiatry (D.P.M.), veterinary medicine (D.V.M.), chiropractic (D.C. or D.C.M.), law (LL.B. or J.D.), and theological professions (M.Div. or M.H.L.).

First-professional enrollment: The number of students enrolled in a professional school or program that requires at least 2 years of academic college work for entrance and a total of at least 6 years for a degree. By NCES definition, first-professional enrollment includes only students in certain programs. (See *first-professional degree* for a list of programs.)

Full-time enrollment: The number of students enrolled in higher education courses with total credit load equal to at least 75 percent of the normal full-time course load.

Full-time-equivalent (FTE) enrollment: For institutions of higher education, enrollment of full-time students, plus the full-time equivalent of part-time students as reported by institutions. In the absence of an equivalent reported by an institution, the FTE enrollment is estimated by adding one-third of part-time enrollment to full-time enrollment.

Full-time worker: In educational institutions, an employee whose position requires being on the job on school days throughout the school year at least the number of hours the schools are in session; for higher education, a member of an educational institution's staff who is employed full time.

Graduate: An individual who has received formal recognition for the successful completion of a prescribed program of studies.

Graduate enrollment: The number of students who hold the bachelor's or first-professional degree, or the equivalent, and who are working toward a master's or doctor's degree. First-professional students are counted separately. These enrollment data measure those students who are registered at a particular time during the fall. At some institutions, graduate enrollment also includes students who are in postbaccalaureate classes but not in degree programs.

High school: A secondary school offering the final years of high school work necessary for graduation, usually including grades 10, 11, and 12 (in a 6-3-3 plan), or grades 9, 10, 11, and 12 (in a 6-2-4 plan).

Higher education: Study beyond secondary school at an institution that offers programs terminating in an associate, baccalaureate, or higher degree.

Higher education institutions (traditional classifications):

> **4-year institution:** An institution legally authorized to offer and offering at least a 4-year program of college-level studies wholly or principally creditable toward a bachelor's degree. A university is a postsecondary institution that typically includes one or more graduate professional schools.
>
> **2-year institution:** An institution legally authorized to offer and offering at least a 2-year program of college-level studies that terminates in an associate degree or is principally creditable toward a baccalaureate.

Higher Education Price Index: A price index which measures average changes in the prices of goods and services purchased by colleges and universities through current-fund expenditures and educational and general expenditures (excluding expenditures for sponsored research and auxiliary enterprises).

Instructional staff: Full-time-equivalent number of positions, not the number of individuals occupying the positions during the school year. In local schools, it includes all public elementary and secondary (junior and senior high) day-school positions that are in the nature of teaching or the improvement of the teaching—learning situation. This includes consultants or supervisors of instruction, principals, teachers, guidance personnel, librarians, psychological personnel, and other instructional staff. This excludes administrative staff, attendance personnel, clerical personnel, and junior college staff.

Master's degree: A degree awarded for successful completion of a program generally requiring 1 or 2 years of full-time college-level study beyond the bachelor's degree. One type of master's degree, including the Master of Arts degree (M.A.) and the Master of Science degree (M.S.), is awarded in the liberal arts and sciences for advanced scholarship in a subject field or discipline and demonstrated ability to perform scholarly research. A second type of master's degree is awarded for the completion of a professionally oriented program, for example, an M.Ed. in education, an M.B.A. in business administration, an M.F.A. in fine arts, an M.M. in music, an M.S.W. in social work, or an M.P.A. in public administration. A third type of master's degree is awarded in professional fields for study beyond the first-professional degree, for example, the Master of Laws (LL.M.) and Master of Science in various medical specializations.

Part-time enrollment: The number of students enrolled in higher education courses with a total credit load of less than 75 percent of the normal full-time credit load.

Personal income: Current income received by persons from all sources minus their personal contributions for social insurance. Classified as "persons" are individuals (including owners of unincorporated firms), nonprofit institutions serving individuals, private trust funds, and private noninsured welfare funds. Personal income includes transfers (payments not resulting from current production) from government and business such as social security benefits, military pensions, and so forth, but excludes transfers among persons.

Postbaccalaureate enrollment: The number of graduate and first-professional students working toward advanced degrees and students enrolled in graduate-level classes but not enrolled in degree programs. See also *graduate enrollment* and *first-professional enrollment*.

Private institution: A school or institution that is controlled by an individual or agency other than a state, a subdivision of a state, or the federal government; that is usually supported primarily by other than public funds; and the operation of whose program rests with other than publicly elected or appointed officials.

Property tax: The sum of money collected from a tax levied against the value of property.

Public school or institution: A school or institution controlled and operated by publicly elected or appointed officials and generally deriving its primary support from public funds.

Pupil-teacher ratio: The enrollment of pupils at a given period of time, divided by the full-time-equivalent number of classroom teachers serving these pupils during the same period.

Revenues: All funds received from external sources, net of refunds and correcting transactions. Noncash transactions such as receipt of services, commodities, or other receipts "in kind" are excluded, as are funds received from the issuance of debt, liquidation of investments, or nonroutine sale of property.

Revenue receipts: Additions to assets that do not incur an obligation that must be met at some future date and do not represent exchanges of property for money. Assets must be available for expenditures.

Salary: The total amount regularly paid or stipulated to be paid to an individual, before deductions, for personal services rendered while on the payroll of a business or organization.

School: A division of the school system consisting of students in one or more grades or other identifiable groups and organized to give instruction of a defined type. One school may share a building with another school or one school may be housed in several buildings.

Secondary instructional level: The general level of instruction provided for pupils in secondary schools (generally covering grades 7 through 12 or 9 through 12) and any instruction of a comparable nature and difficulty provided for adults and youth beyond the age of compulsory school attendance.

Secondary school: A school including any span of grades beginning with the next grade following an elementary or middle school (usually 7, 8, or 9) and ending with or below grade 12. Both junior high schools and senior high schools are included.

Senior high school: A secondary school offering the final years of high school work necessary for graduation.

Student: An individual for whom instruction is provided in an educational program under the jurisdiction of a school, school system, or other educational institution. No distinction is made between the terms "student" and "pupil," although "student" may refer to one receiving instruction at any level while "pupil" refers only to one attending school at the elementary or secondary level. The term "student" is used to include individuals at all instructional levels. A student may receive instruction in a school facility or in another location, such as at home or in a hospital. Instruction may be provided by direct student-teacher interaction or by some other approved medium, such as television, radio, telephone, or correspondence.

Tax base: The collective value of sales, assets, and income components against which a tax is levied.

Total expenditure per pupil in average daily attendance: Includes all expenditures allocable to per pupil costs divided by average daily attendance. These allocable expenditures include current expenditures for regular school programs, interest on school debt, and capital outlay. Beginning in 1980-81, expenditures for administration by state governments are excluded and expenditures for other programs (summer schools, community colleges, and private schools) are included.

Unclassified students: Students who are not candidates for a degree or other formal award, although they are taking higher education courses for credit in regular classes with other students.

U**ndergraduate students:** Students registered at an institution of higher education who are working in a program leading to a baccalaureate or other formal award below the baccalaureate, such as an associate degree.

Statistical Terms

Autocorrelation: Correlation of the error terms from different observations of the same variable. Also called *serial correlation*.

Degrees of freedom: The number of free or linearly independent sample observations used in the calculation of a statistic. In a time series regression with t time period and k independent variables including a constant term, there would be t-k degrees of freedom.

Dependent variable: A mathematical variable whose value is determined by that of one or more other variables in a function. In regression analysis, when a random variable, y, is expressed as a function of variables x_1, x_2,..., plus a stochastic term, then y is known as the "dependent variable."

Double exponential smoothing: A method that takes a single smoothed average component of demand and smoothes it a second time to allow for estimation of a trend effect.

Durbin-Watson statistic: A statistic testing the independence of errors in least squares regression against the alternative of first-order serial correlation. The statistic is a simple linear transformation of the first-order serial correlation of residuals and, although its distribution is unknown, it is tested by bounding statistics that follow R. L. Anderson's distribution.

Econometrics: The quantitative examination of economic trends and relationships using statistical techniques, and the development, examination, and refinement of those techniques.

Estimate: A numerical value obtained from a statistical sample and assigned to a population parameter. The particular value yielded by an estimator in a given set of circumstances or the rule by which such particular values are calculated.

Estimating equation: An equation involving observed quantities and an unknown that serves to estimate the latter.

Estimation: Estimation is concerned with inference about the numerical value of unknown population values from incomplete data, such as a sample. If a single figure is calculated for each unknown parameter, the process is called point estimation. If an interval is calculated within which the parameter is likely, in some sense, to lie, the process is called interval estimation.

Exogenous variable: Variables for which the values are determined outside the model but which influence the model.

Exponential smoothing: A method used in time series to smooth or to predict a series. There are various forms, but all are based on the supposition that more remote history has less importance than more recent history.

Ex-ante forecast: When forecasting a dependent variable for some time period t using a model with at least one independent variable, the forecast of the dependent variable is an ex-ante forecast if the values for the independent variables for time period t are themselves not known.

Ex-post forecast: When forecasting a dependent variable for some time period t using a model with at least one independent variable, the forecast of the dependent variable is an ex-post forecast if the actual values for the independent variables for time period t are the known. Ex-post forecasts are often used in forecast evaluation.

First-order serial correlation: When errors in one time period are correlated directly with errors in the ensuing time period. Also called autocorrelation.

Forecast: An estimate of the future based on rational study and analysis of available pertinent data, as opposed to subjective prediction.

Forecasting: Assessing the magnitude which a quantity will assume at some future point in time, as distinct from "estimation," which attempts to assess the magnitude of an already existent quantity.

Forecast horizon: The number of time periods into the future which are forecasted. Forecasts for next year are said to have a 1-year forecast horizon.

Function: A mathematical correspondence that assigns exactly one element of one set to each element of the same or another set. A variable that depends on and varies with another.

Functional form: A mathematical statement of the relationship among the variables in a model.

Independent variable: In regression analysis, when a random variable, y, is expressed as a function of variables x_1, x_2,..., plus a stochastic term, the x's are known as "independent variables."

Lag: An event occurring at time t + k (k > 0) is said to lag behind an event occurring at time t, the extent of the lag being k. An event occurring k time periods before another may be regarded as having a negative lag.

Maximum likelihood estimation: A method of estimating a parameter or parameters of a population by that value (or values) that maximizes (or maximize) the likelihood of a sample.

Mean absolute percentage error (MAPE): The average value of the absolute value of errors expressed in percentage terms.

Model: A system of postulates, data, and inferences presented as a mathematical description of a phenomenon such as an actual system or process. The actual phenomenon is represented by the model in order to explain it, to predict it, and to control it.

Ordinary least squares (OLS): The estimator that minimizes the sum of squared residuals.

Parameter: A quantity that describes a statistical population.

Projection: In relation to a time series, an estimate of future values based on a current trend.

R^2: The coefficient of determination; the square of the correlation coefficient between the dependent variable and its OLS estimate.

R^2(also called the adjusted R^2): The coefficient of determination adjusted for the degrees of freedom.

Regression analysis: A statistical technique for investigating and modeling the relationship between variables.

Rho: A measure of the correlation coefficient between errors in time period t and time period t minus 1.

Serial correlation: Correlation of the error terms from different observations. Also called *autocorrelation*.

Standard error of estimate: An expression for the standard deviation of the observed values about a regression line. An estimate of the variation likely to be encountered in making predictions from the regression equation.

Time series: A set of ordered observations on a quantitative characteristic of an individual or collective phenomenon taken at different points in time. Usually the observations are successive and equally spaced in time.

Time series analysis: The branch of quantitative forecasting in which data for one variable are examined for patterns of trend, seasonality, and cycle.

Variable: A quantity that may assume any one of a set of values.